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Welcome to Axiom

Axiom 4.1 is a powerful and easy to use platform where distributed teams can define and manage textual artifacts such as requirements and use cases. Additionally, Axiom allows teams to rapidly build user interface prototypes with our advanced UI wireframe builder. These UI prototypes can then be combined with our proprietary Axiom Rules Language so that application behavior can be defined and validated.

This guide provides an overview of Axiom's core functionality where you will learn how to:

- [Build a template](#) that defines the structure of a textual artifact.
- Use a template to [create new textual artifacts](#).
- Export your requirements, use cases and other textual artifacts to [Microsoft Word](#).
- [Build wireframes](#) that visually describe user interfaces.
- Use [Axiom Rules Language](#) (ARL) to strictly define behavioral and validation requirements.
- Create [custom links](#) between requirements and other artifacts.
- Build and publish reports with our integrated [report builder](#).

Before we discuss the details, we will provide a quick introduction to the essential concepts of Axiom 4.1.

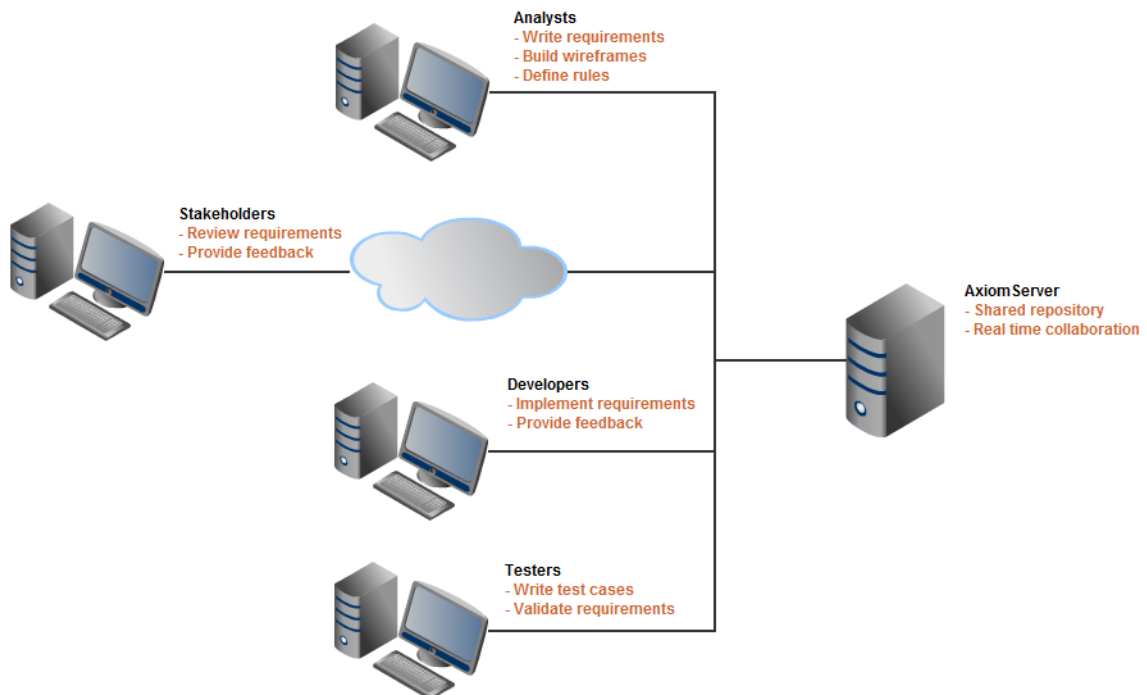
Concepts

This chapter introduces the core concepts related to Axiom. In this chapter we will:

- Discuss the Axiom client/server architecture.
- Introduce the concept of an *artifact*.
- Provide an overview of Axiom artifact templates.
- Establish the key concepts regarding artifact lifecycle.

Built for Collaboration

Axiom gives analysts, developers, QA professionals and external stakeholders a common, collaborative platform for building and managing requirements, test cases and UI wireframes:



Axiom provides real-time collaboration. This means that, when a user creates or modifies an artifact, all other stakeholders are instantly notified.

Requirements are Artifacts

In this document we will typically use the word “artifact” to describe an object managed by Axiom. An artifact is a tangible by-product of the design and development of software. Examples of artifacts include:

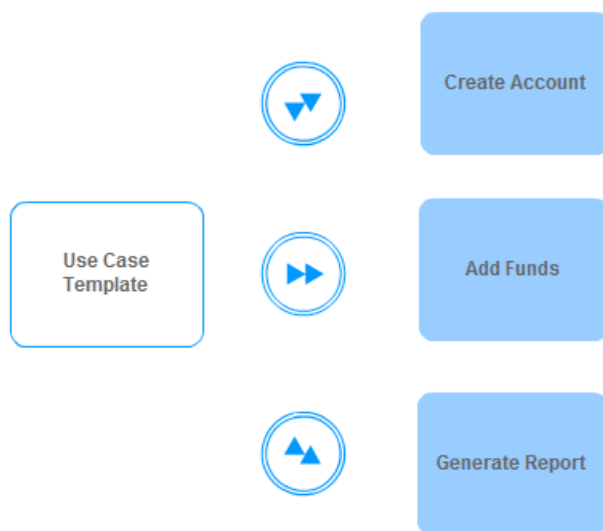
- Stakeholder requests
- Glossaries
- Source code
- Non-functional requirements

- Use cases
- UML diagrams
- Test plans

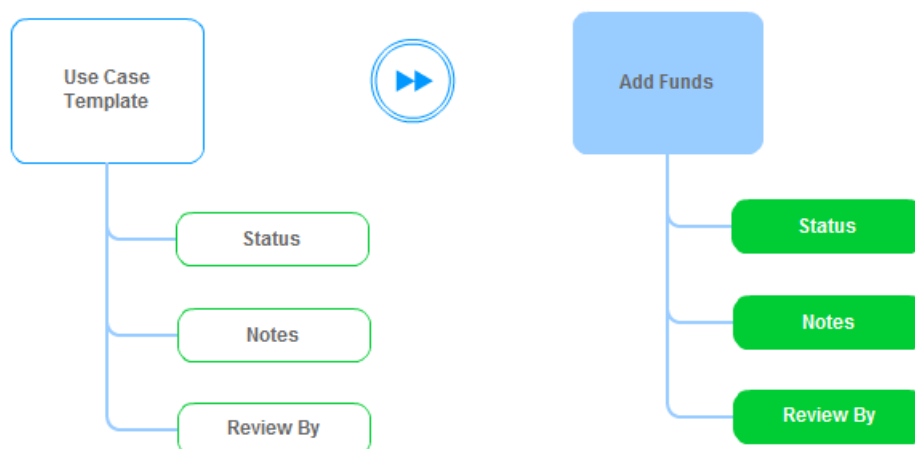
Axiom is a platform optimized for defining and managing software requirements; however, because Axiom has a flexible architecture, it can easily be utilized to manage **any type of textual artifact** that your team might need when developing software.

Templates Define Artifact Types

In Axiom, users create templates to define the structure for a particular type of textual artifact. For example, a project administrator might create a “Use Case” template that will be used to create a set of use case artifacts:



Templates define the attributes associated with a type of artifact; therefore, when a template is used to create a new artifact, copies of the template’s attributes are passed to the artifact.



See [Artifact Templates](#) for a complete explanation of how to create and use artifact templates.

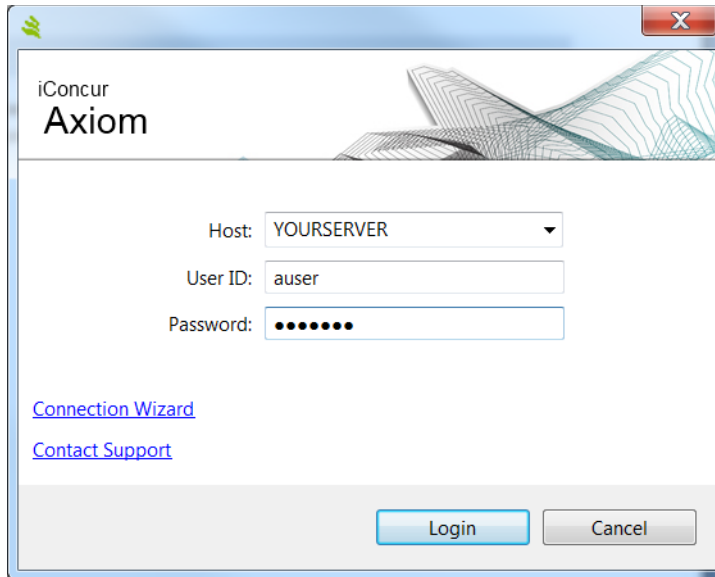
Axiom Helps You Manage Artifacts

Axiom provides the tools your team needs to manage your project's requirements, use cases and other textual artifacts. More specifically, Axiom:

- Provides a number of configurable views so that artifacts can be filtered, sorted and grouped.
- Tracks the history of all changes to all artifacts system-wide.
- Gives project owners the ability to set fined-grained permissions for sets of artifacts.
- Allows custom triggers to be added so that users will be notified by email when a change occurs.
- Provides export functionality to Microsoft Word so that artifacts can be shared with external stakeholders.

Logging In

Axiom is an enterprise class requirements management solution where your team's artifacts are stored in a central location (the Axiom server). To use Axiom, you must first log into the Axiom server:



The login procedure for Axiom users is as follows:

1. Enter the name of the Axiom server in **Host** name field.
2. Type your Axiom user ID in the **User ID** field.
3. Enter your Axiom password in the **Password** field.
4. Click the **Login** button.

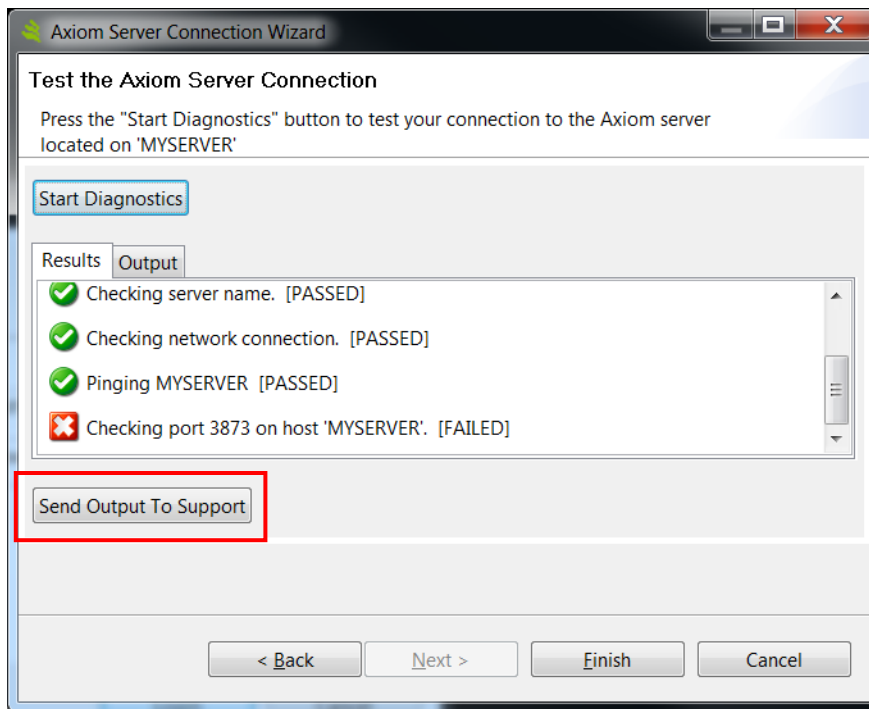
If you are the Axiom server administrator, you will use the user ID that you entered when you installed the Axiom server. If you are not an Axiom server administrator and you don't know your user ID and password, contact your administrator.



By default, the Axiom server will bind to the **name** of its host computer; therefore, if you enter the server's **IP address**, the login might fail. Please see the [Axiom Server Getting Started Guide](#) for more information.

Troubleshooting Connection Problems

Axiom provides an advanced diagnostic tool for troubleshooting connection problems. To run this diagnostic tool, simply select the **Connection Wizard** link on the **Login** screen and follow the steps provided by the wizard.



After running the Connection Wizard's diagnostics, you can click the **Send Output to Support** button to email your log to [Customer Support](#).

Artifact Templates

Before you can create artifacts in Axiom, you'll need to create a template. A template is special type of Axiom object that defines the icon, content type and attributes associated with a type of artifact.



Learn how to use templates with our [online tutorial](#).

Creating a Template

1. In Axiom, right-click on a folder in the [Artifact Explorer](#) view.
2. Select **New->Template...** from the popup menu.
3. When the **New Template** wizard appears, enter a name for your template in the **Name** field.
4. Select a content type from the **Content Type** list.



For most templates, you'll want to select **Text** as the content type.

5. Select the **Change Icon...** button to change your template's icon.
6. Click the **Next >** button to advance to the next page.
7. When the **Select Template Context** page appears, select the locations in the system where instances of the template can be created.
8. Press the **Next >** button to continue to the next page.
9. The **Template Attributes** page allows you to associate custom attributes with your template. There are two ways to add an attribute:
 - **Create a new attribute:**
 1. Select the **Create...** button to create a new attribute.
 2. When the **New Attribute** wizard appears, enter a name for your attribute in the **Name** field.
 3. Select an attribute type from the **Type** drop down.
 4. Enter an optional description in the **Description** field.
 5. Click the **Next >** button to advance to the next page.
 6. Select the initial values for your attribute.
 7. Click the **Finish** button.
 - **Import an attribute from another template:**
 1. Select the **Import...** button.
 2. When the **Existing Attributes** dialog appears, select a template from the **Templates** list.
 3. Select or more attributes from the **Attributes** list.
 4. Select the **OK** to associate the attributes with your template.
10. Click the **Finish** button to create your template.

Creating Artifacts from Templates

Once you have [created a template](#) you can use it to create an artifact:

1. Right-click on location in the [Artifact Explorer](#) where you want to place the new artifact.
2. Select **New** from the popup menu.

3. From the popup submenu, select the name of the template that will be used to create your artifact.
4. Enter the name for the new artifact and click **Finish**.

Modifying a Template

To modify a template:

1. Locate the template that you wish to modify in Axiom's [Artifact Explorer](#).
2. Right-click on the template.
3. Select **Template Properties...** from the popup menu.
4. Use the template properties dialog to change the context, name, icon, and attributes associated with the template.



Warning: Removing an attribute from a template will cause the attribute to be removed from all artifacts that are associated with that template.

Locating Templates in the Artifact Explorer

All templates in the [Artifact Explorer](#) are adorned with a small “T” icon:



If you are unable to locate a template in the **Artifact Explorer**:

1. Locate an artifact that was created from the template that you are seeking.
2. Right-click on the artifact.
3. Click **Select Template in Explorer** from the popup menu.

Working with Artifacts

In this section, you will learn the basics of how to create, modify and delete Axiom artifacts.

Creating a New Artifact

As we discussed in the section on [Axiom Templates](#), to create an artifact, simply:

1. Right-click on location in the [Artifact Explorer](#) where you want to create an artifact.
2. Select **New** from the context menu.
3. Select the type of artifact that you would like to create from the submenu.
4. Specify the name for the new artifact and click **Finish**.

You can also create a new artifact by select **File->New Artifact or Template** from the menu bar.

Deleting Artifacts

To delete artifacts from the [Artifact Explorer](#), select one or more artifacts and press the **DELETE** key on your keyboard. You can also delete artifacts by selecting **Edit->Delete** from the menu bar, or **Delete** from context menu of the **Artifact Explorer**.

Copying Artifacts

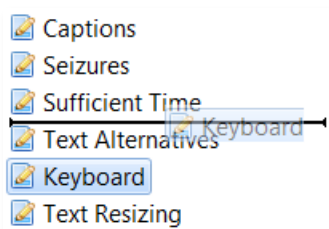
In Axiom, you can quickly make copies of one or more artifacts:

1. Right-click on an artifact in the [Artifact Explorer](#).
2. Select **Copy** from the context menu.
3. Right-click on the artifact that is to be the parent of the copied artifact.
4. Select **Paste** from the context menu.
5. Once you select **Paste**, you will be prompted to copy the descendants of the copied artifact (if there are any descendants.)

Artifacts can also be copied by selecting **Edit->Copy** and **Edit->Paste** from the main menu bar or by selecting **CTRL + C** and **CTRL + V** on your keyboard.

Moving Artifacts

The quickest way to move or reorder artifacts within the **Artifact Explorer** is to simply drag-and-drop artifacts from one location to another:



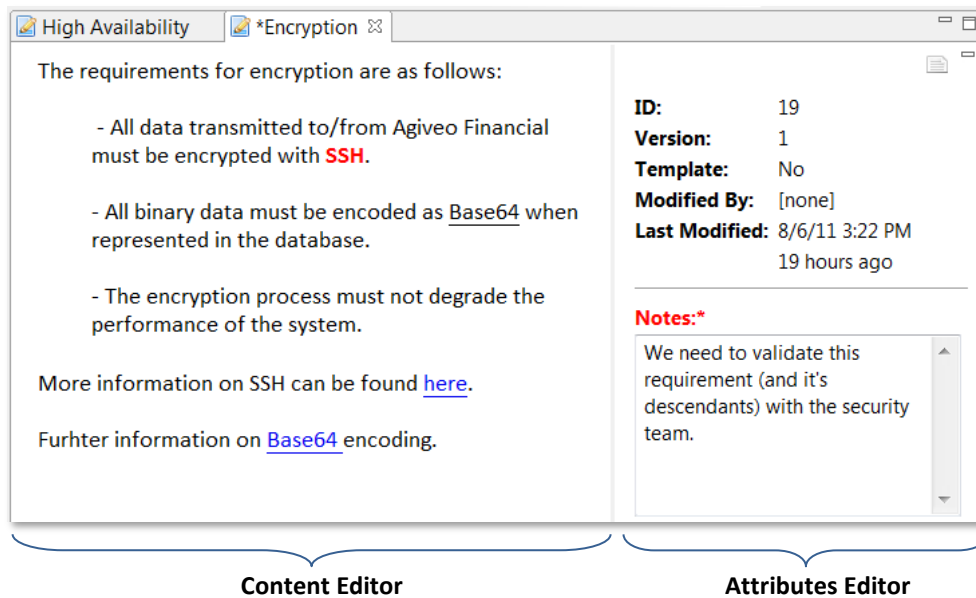
You can also move artifacts by:

1. Selecting one or more artifacts in the [Artifact Explorer](#).
2. Right-click and select **Cut** from the context menu.
1. Right-click on another artifact.
2. Select **Paste** from the context menu.

Artifacts can also be moved by selecting **Edit->Cut** and **Edit->Paste** on the main menu bar or by selecting **CTRL + X** and **CTRL + V** on your keyboard.

Editing Artifacts

The content and attributes of an artifact can be edited by double-clicking on the artifact in the [Artifact Explorer](#):

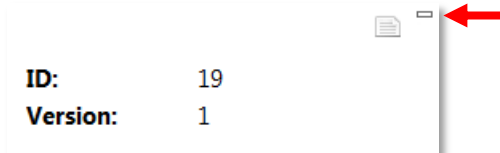



The artifact editor is divided into two sections: A rich text [Content Editor](#) for editing the textual content of artifacts and the [Attributes Editor](#) for modifying the custom attributes associated with artifacts.

Attributes Editor

The **Attributes Editor** displays an artifact's common attributes (ID, last modification date, etc.) and custom attributes.

To hide or display the **Attributes Editor**, click the **Minimize Property View** button in upper-right corner:



To toggle the display of the custom attribute descriptions, select the **Show Attribute Descriptions** button .

Modifying Attributes

To modify an artifact's attributes:

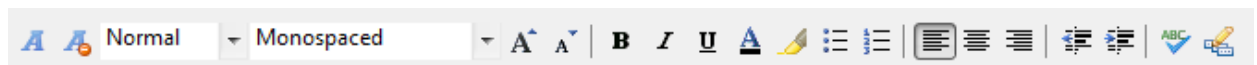
1. Select an artifact in the **Artifact Explorer**.
2. In the **Attributes Editor**, make the appropriate changes to the artifact's attributes. Note: When an attribute is modified, the attribute's label will indicate that a change has occurred by turning red:

Review By:*


3. Once are satisfied with your changes, select the **Save** button  from the Axiom toolbar.


Content Editor

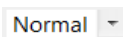
Axiom allows you to format your artifact content with a wide range of font faces, colors, and styles. You can also insert tables, hyperlinks and images. Most of Axiom's rich text formatting options can be found on the Axiom toolbar:

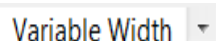



The **Content Editor** toolbar contains the following controls:


 **Font** – Opens the **Font** dialog.


 **Clear Formatting** – Removes all formatting from the selected text.


 **Choose a paragraph format** – Changes the paragraph format for the selected text.

 **Choose a font** – Sets the font face of the selected text.

 **Increase Font** – Increases the font size of the selected text.

 **Decrease Font** - Decreases the font size of the selected text.










 **Bold** – Makes the selected text bold.

 **Italic** – Makes the selected text italic.

 **Underline** – Underlines the selected text.

 **Text Color** – Sets the foreground color of the selected text.

 **Highlight Color** – Sets the background color of the selected text.

-  **Bullets** – Converts the selected text to a bulleted list.
-  **Numbering** – Converts the selected text to a numeric list.
-  **Align Left** – Aligns the selected text to the left.
-  **Align Center** – Center aligns the selected text.
-  **Align Right** – Right aligns the selected text.
-  **Decrease Indent** – Decreases the indentation of the selected paragraph(s).
-  **Increase Indent** – Increase the indentation of the selected paragraph(s).
-  **Spell Check** – Turns on the spell checking feature. When this feature is on, misspelled words will be underlined in red.
-  **Edit Collection Templates** – When an artifact's content has embedded artifacts, toggle this button on to show the boundaries of the embedded artifacts.

Adding Tables

To add a table to an artifact's content:

1. In the editor, select where you want to insert the table.
2. Select **Insert->Table** from the menu bar.
3. When the **New Table** dialog appears, set the properties of your table and press the **OK** button.

To insert columns and rows into an existing table, select **Format->Table->Insert** from the main menu. Likewise, you can delete columns and rows by selecting **Format->Table->Delete**.

Inserting Pictures

To insert an image into an artifact's content:

1. In the editor, select the location where you would like to place the image.
2. Select **Insert->Image** from the menu bar.
3. When the **Open** dialog appears, select an image stored on your computer.

You can also insert images by copying them to the clipboard and then pasting them into the artifact's content.

Inserting Hyperlinks

You can insert a hyperlink to an external URL or to another Axiom artifact by taking the following steps:

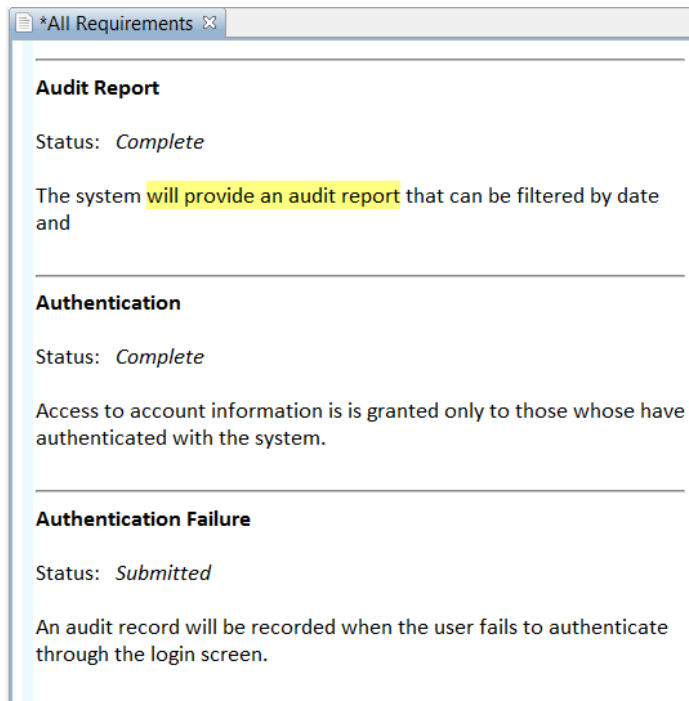
1. Select the location where you want to insert the hyperlink.

2. From the menu bar, select **Insert->Hyperlink**.
3. When the **Insert Hyperlink** dialog appears, select one of the following tabs:
 - **Web Page** – to insert a link to an external URL. When users click on this link, the URL will be opened in the user’s browser.
 - **Artifact** – to create a link to another Axiom artifact.
 - **Email** – to create a “mailto” link.
4. In the **Text to display** field, enter the text that will be displayed when the hyperlink is shown in the editor. Leave this field blank to display the actual hyperlink text in the editor.

To open a hyperlink in the editor, hold down the **CTRL** key and click the hyperlink.

Artifact Collections

With Axiom you can create documents that contain collections of other artifacts. These collections can be filtered and sorted and will update dynamically as the embedded artifacts change. For example, the following screenshot shows a document that contains a number of high-priority requirements sorted by the **name** field:



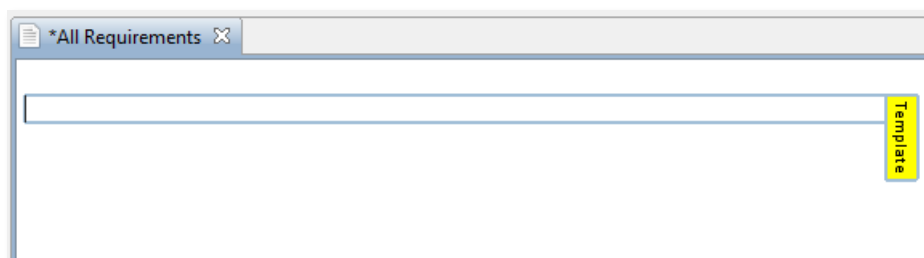
Learn how to use Axiom's Artifact Collection feature with our [online tutorial](#).

Inserting Artifact Collections

To insert an artifact collection into the content of an artifact:

1. Create (or open) a textual artifact.
2. In the [Content Editor](#), select the location where you want to embed a collection of artifacts.
3. Right-click and select **Insert->Artifacts...** from the content menu.

You should now see that an artifact collection template has been inserted into the document:



You will also notice that the **Artifact Collections Properties** view has been opened. To pick which artifacts will be displayed in your collection, define a filter:

1. Press the **Select...** button to select the sub-tree of artifacts to include.
2. When the **Select Root Artifact** dialog appears, select an artifact from the tree. The descendants of the selected artifact will be included in the collection.
3. Press the **OK** button.
4. If you want to filter the selected artifacts further, press the **New** button to create a new filter condition.
5. Select a field name, operator and value. For example:

Attribute	Operator	Value
AND		
Review By	more than	7/6/10 6:00 PM
Status	equals	Submitted

6. To define the collection's sort order, choose a field to sort by from the **Sort items by** dropdown.

To define which fields will appear in the inserted content and how these fields will formatted:

1. Select the **Template** in the editor.
2. Type static text into the editor.
3. Press **CTRL + SPACE** to display a list of artifact fields.
4. Select a field from the popup list.
5. Use the formatting toolbar to define the style of the inserted fields and static text.

Finally, to populate the artifact collection, toggle-off the **Edit Collection Templates** button .

Opening Embedded Artifacts

To open an artifact that is embedded in an artifact collection, simply hold down the **CTRL** key and click it. This action is especially useful if you need to edit the custom attributes associated with a particular artifact.

Securing Artifacts

Axiom provides a simple, yet powerful, security infrastructure. In this section, we will discuss how to apply access and modification permissions to a sub-tree of artifacts.



Learn how to secure Axiom artifacts with our [security tutorial](#).

To apply security to a sub-tree of artifacts:

1. Locate the root of the sub-tree that you wish to secure. This can be a project, a folder, or any other artifact in the [Artifact Explorer](#).
2. Right-click on the root artifact of the sub-tree.
3. Select **Security...** from the context menu.
4. When the **Permissions** dialog appears, select the **Add...** button to add users.
5. After the **Select Users** dialog appears:
 - a. Select one or more users from the list on the left.
 - b. Press the > button to move the users to the list on the right.
 - c. Select the **OK** button.
6. Now that users have been added to the artifact, select a user from the **Users** list.
7. In the list below, check the permissions to allow or deny.
8. Repeat steps 6 & 7 for the remaining users.
9. If you want to apply these permissions to the entire sub-tree, check the **Apply this security to all artifacts under** checkbox.
10. Press the **OK** button.

Creating Microsoft Word Documents

With Axiom, you easily create Microsoft Word (2007 & 2010) documents that contain content from your requirements, use cases and other artifacts. The process for creating a Word Document from Axiom artifacts is as follows:

1. In Axiom, create a [Microsoft Office Dataset](#).
2. In Microsoft Word, create a document that contains an [Axiom collection template](#).
3. [Populate your document](#) with data from the **Microsoft Office Dataset**.

 An interactive [online tutorial](#) is available for this topic.

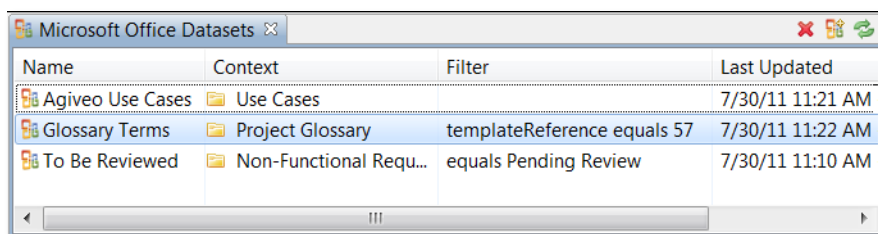
Creating a Microsoft Office Dataset

A **Microsoft Office Dataset** is a collection of data exported by Axiom that can be used to create a Microsoft Word document. You can create a **Microsoft Office Dataset** by taking the following steps:

1. In Axiom, select **File->New Microsoft Office Dataset**.
2. After the **New Microsoft Office Dataset** dialog appears, enter the dataset's name in the **Name** field.
3. Press the **Select...** button to select the sub-tree of artifacts that will be included in the dataset.
4. *Optional:* Press the **New** button to create a filter for the dataset.
5. Press the **OK** button to create the dataset.

Viewing Microsoft Office Datasets

After you create a **Microsoft Office Dataset**, the **Microsoft Office Datasets** view will appear:




Name	Context	Filter	Last Updated
Agiveo Use Cases	Use Cases		7/30/11 11:21 AM
Glossary Terms	Project Glossary	templateReference equals 57	7/30/11 11:22 AM
To Be Reviewed	Non-Functional Requi...	equals Pending Review	7/30/11 11:10 AM

This view can also be opened by selecting **View->Microsoft Office Datasets** from Axiom menu bar.

The **Microsoft Office Datasets** view contains the following columns:

- **Name** – The name of the dataset.
- **Context** – The sub-tree of artifacts that is used to populate the dataset.
- **Filter** – The conditions used to filter the artifacts included in the **Context**.
- **Last Updated** – The date the dataset was last refreshed with data from the Axiom server.

Updating Datasets


To refresh a dataset with the latest data from the Axiom server, press the **Update Dataset** button . Once a dataset has been updated the **Last Updated** cell will be set to the current date:

Last Updated
7/30/11 11:21 AM (48 minutes ago)
7/30/11 12:10 PM (1 second ago)

Editing Datasets

To change the name, context or filter associated with a dataset, double-click on a row in the **Microsoft Office Datasets** view. This action will open the **Edit Microsoft Office Dataset** dialog.

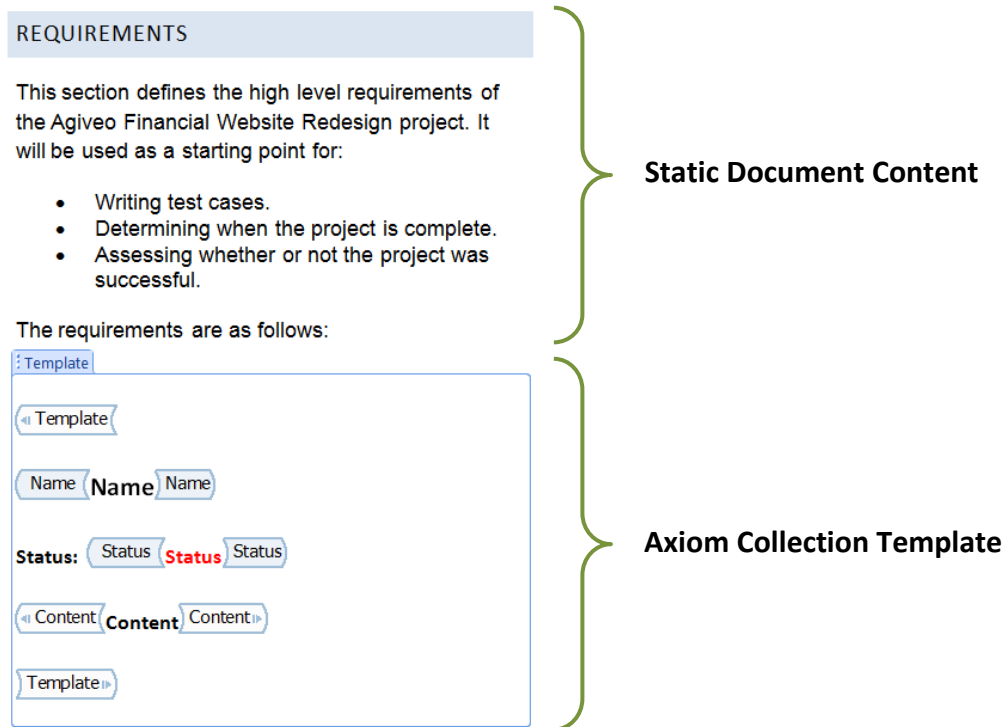
Deleting Datasets

To delete a dataset, select a row in the **Microsoft Office Datasets** view and press the **DELETE** key on your keyboard, or the **Delete** button  from the toolbar.

Using Axiom Collection Templates in Microsoft Word

Axiom Collection Templates allow you to define how Axiom content is to be displayed when it is inserted in to a Microsoft Word document.

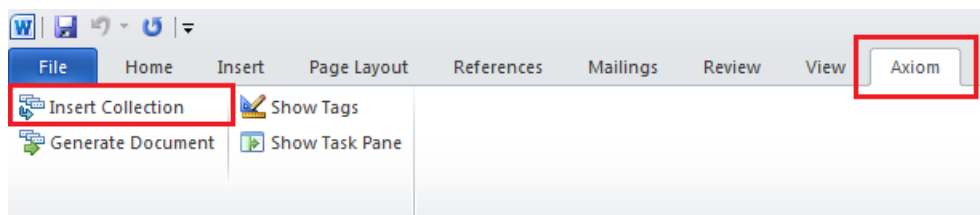
Collection Templates allow you to mix static document content with Axiom data. For example, the following Microsoft Word document contains both static content and an Axiom Collection Template that will later be used to insert several Axiom artifacts:



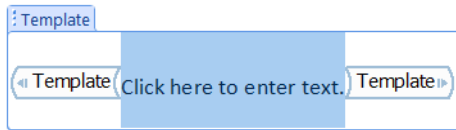
Inserting Artifact Collection Templates

To insert an Axiom Collection Template into a Microsoft Word document:

1. Open Microsoft Word.
2. Click in the document where you want to insert the Collection Template.
3. On the **Axiom** tab, click the **Insert Collection** button:

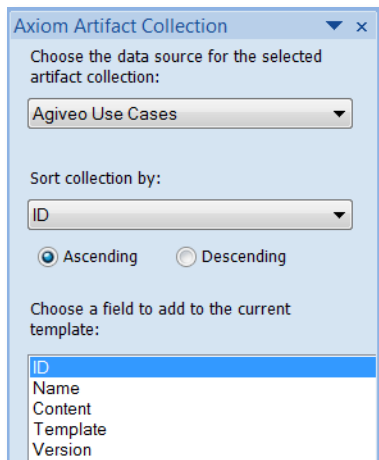


When the **Insert Collection** button is pressed, an empty template is inserted into the document:



Editing Artifact Collection Templates

When you insert a collection template into a document, the **Axiom Artifact Collection** pane will appear to the right of the document:



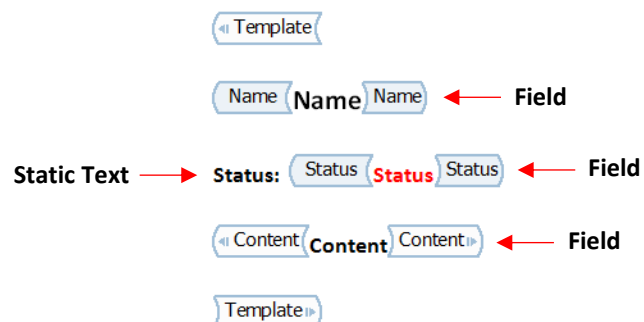
Axiom Artifact Collection pane is used for:

- Selecting the **Microsoft Office Dataset** to use to populate your document.
- Choosing the Axiom artifact field to use when sorting artifacts.
- Inserting Axiom artifact fields into the selected collection template.

To insert an Axiom artifact field into a template simply:

1. Click in the template where you want to insert the field.
2. Select a field name from the **Axiom Artifact Collection** pane.

Within the bounds of a template you can mix Axiom artifact fields with static text and other Microsoft Word objects (such as shapes and pictures):



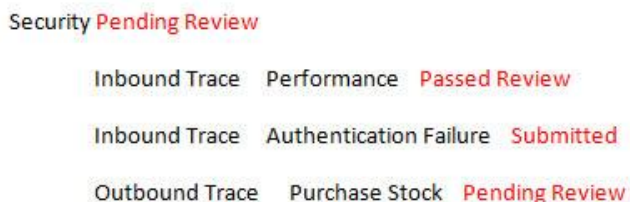
You can also use Word's styles and formatting to design the look of your Axiom artifact data. Simply select a field in the template and apply a style or formatting as you would any other Word element.

Inserting Artifact Links

To insert linking information (for example traces to or from requirements) select the **Links** item from the **Axiom Artifact Collection** pane. Then simply insert other Axiom fields within the Links tag:



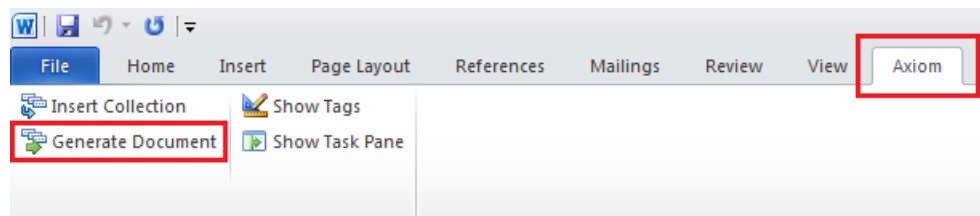
When the document is populated, the Link tags will be replaced with the appropriate Axiom data:




Populating Documents with Axiom Artifacts

Once you have defined the style and layout of a template, you can populate a document with Axiom artifacts by taking the following steps:

1. On the **Axiom** tab, click the **Generate Document** button:



2. If you have not previously saved the current document then the **Save As** dialog will appear. Select the location where the **current** document will be saved and then press the **Save** button.
3. Once you save the **current** document, a second save dialog will appear allowing you to specify the location of the **resulting** document (the document containing Axiom artifact data).

If you want to change the layout or style of the inserted artifacts or change the dataset used to populate the resulting document, simply edit the original template document and then press the **Generate Document** button  on the Axiom tab.

Email Triggers

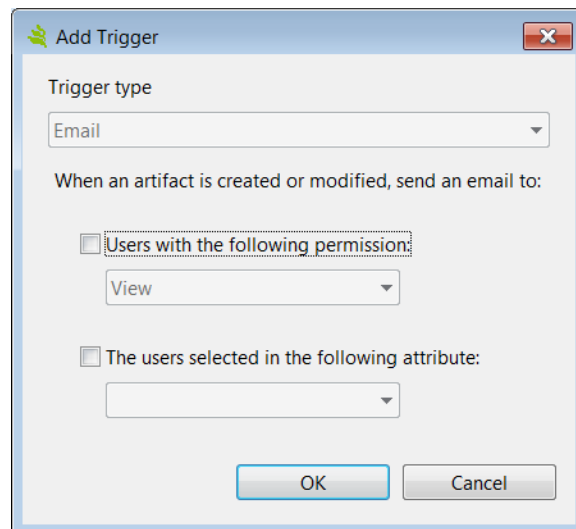
Axiom Professional users can be notified via email when artifacts change. In this chapter we'll discuss how to create an email trigger and apply that trigger to one or more requirements.

Note: Please see the [Administration](#) section of this guide for information on how to configure your Axiom Server to send email.

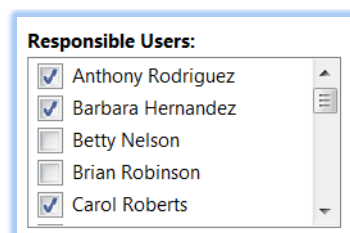
Creating Email Triggers

To create an email trigger:

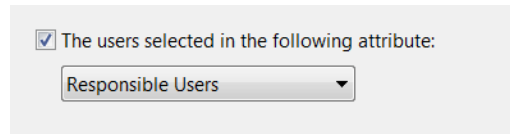
1. Select an artifact in the [Artifact Explorer](#).
2. From Axiom's menu bar, select Edit->Triggers
3. When the **Triggers** dialog appears, press the **Add...** button to add a new trigger.
4. The **Add Trigger** dialog appears:



5. You now have an decision to make regarding which users will receive email notifications:
 - a. Check **Users with the following permissions** to send email to the users that have a particular [security permission](#). For example, you might use this option to send update emails to all users with who have “view” permissions for a set of requirements.
 - b. Check **the users selected in the following attribute** checkbox to send update emails to users that have been selected in a custom attribute attached to an artifact. For example, let's say that your requirements have the following attribute:

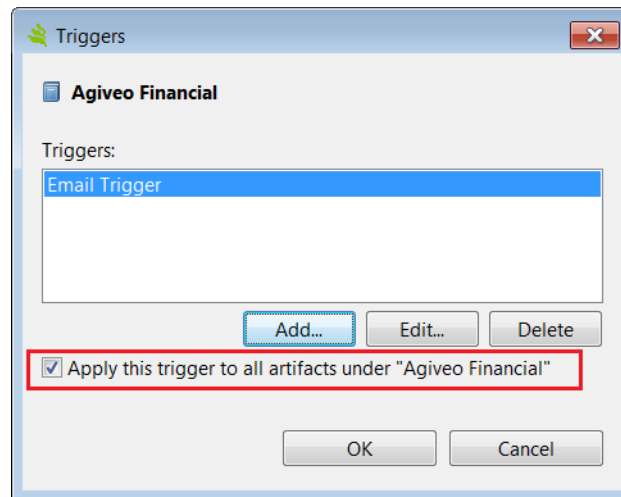


You could use this option send an email to the selected users when the requirement changes:



A screenshot of a user interface element. It features a checked checkbox followed by the text "The users selected in the following attribute:". Below this text is a dropdown menu with the text "Responsible Users" and a downward-pointing arrow.

6. Once you have selected the users that will be notified, press the **OK** button.
7. If you want to attach the new trigger to all descendants of the selected artifact, check the **Apply this trigger...** checkbox:

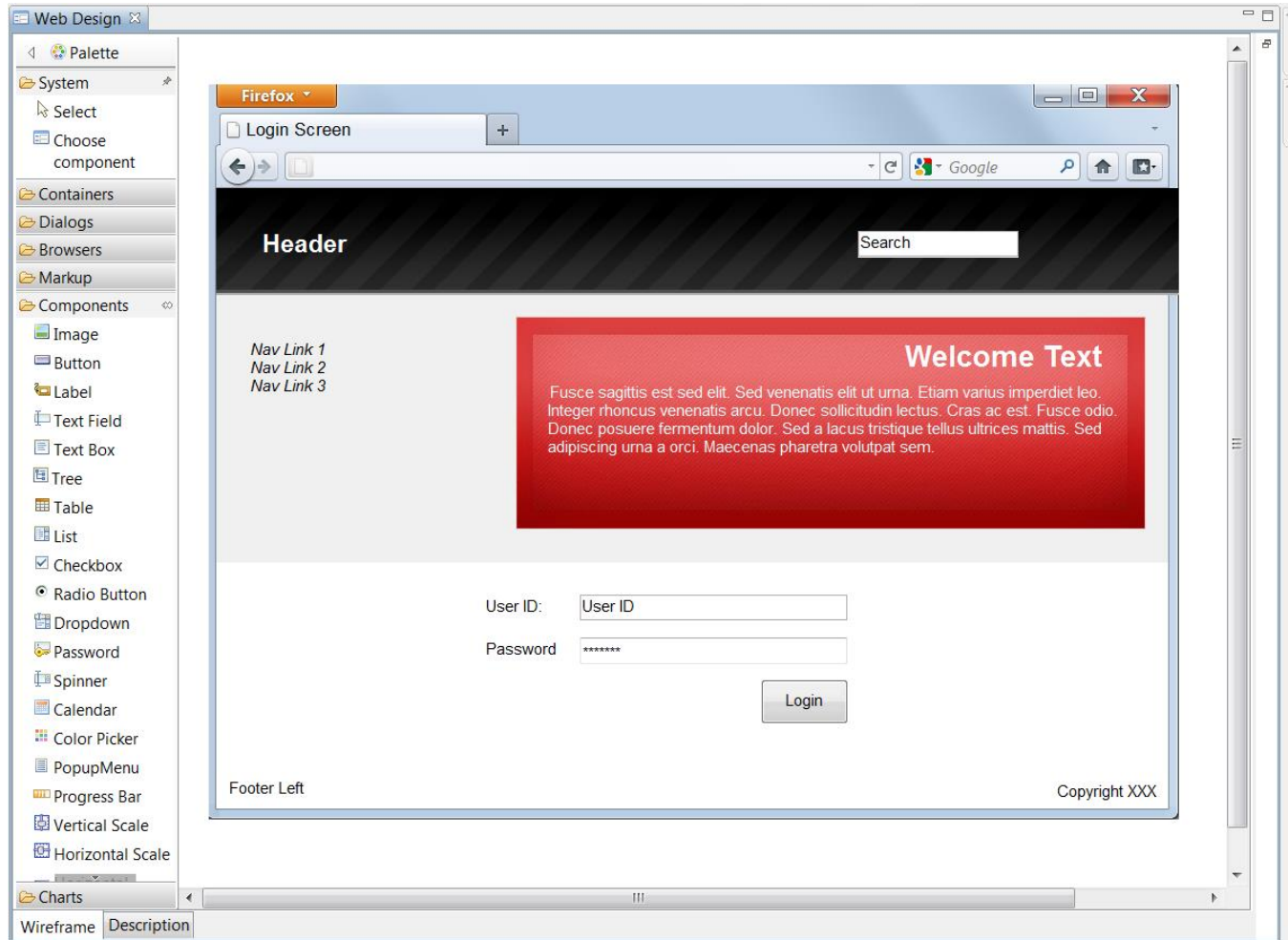


A screenshot of a dialog box titled "Triggers". Inside the dialog, there is a section labeled "Agiveo Financial" with a sub-label "Triggers:". Below this is a list box containing "Email Trigger". To the right of the list box are three buttons: "Add...", "Edit...", and "Delete". Below these buttons is a checkbox labeled "Apply this trigger to all artifacts under 'Agiveo Financial'", which is checked and highlighted with a red rectangle. At the bottom of the dialog are "OK" and "Cancel" buttons.

8. Press the **OK** button.


Building User Interface Wireframes

User interface wireframes are invaluable for visually communicating the functional requirements, style and layout of an application. With Axiom Professional, you can create and share a UI wireframe in a matter of seconds.



Creating Wireframe Templates

To build one or more wireframe, you must first create a wireframe template:

1. In Axiom, right-click on a folder in the [Artifact Explorer](#) view.
2. Select **New->Template...** from the popup menu.
3. When the **New Template** wizard appears, enter a name for your wireframe template in the **Name** field.
4. Select the **Wireframe**  content type from the **Content Type** list.
5. Click the **Next >** button to advance to the next page.
6. When the **Select Template Context** page appears, select the locations in the system where wireframes of this type can be created.
7. Press the **Next >** button to advance to the next page.
8. The **Template Attributes** page allows you to associate attributes with your wireframes. For information on how to associate attributes with a template, see the [Creating a Template](#) section.

9. Click the **Finish** button to create the wireframe template.

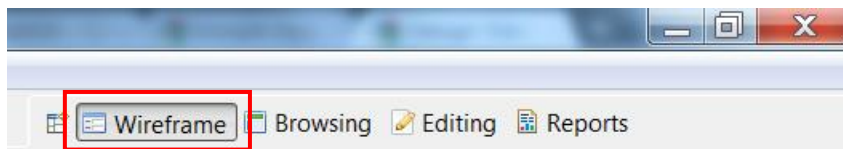
Creating Wireframe Artifacts

Once you have defined a [wireframe template](#), you can use it to create wireframe mockup artifacts:

1. Right-click on location in the [Artifact Explorer](#) where you want to create a wireframe.
2. Select **New** from the popup menu.
3. From the popup submenu, select a wireframe template.
4. Enter a name for your wireframe in the **Name** field.
5. Click the **Next >** button.
6. When the **UI Component Type** page appears, select the user interface that will be the root component of your wireframe. For example, if you are creating a web page wireframe, you will probably want to select a browser component as the root. Likewise, if you are creating a mockup of an application then you may want to start with a dialog component.
7. Press **Finish**.
8. Double-click on the new wireframe artifact to edit it.

Wireframe Perspective

Axiom's **Wireframe** perspective provides a set of views and a layout that is optimized for building user interface wireframes. To switch to the **Wireframe** perspective, click the **Wireframe** button on Axiom's perspective bar:

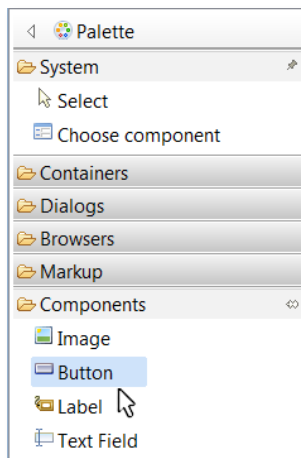


Using the Wireframe Editor

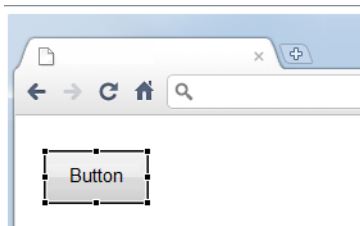
Adding Components

The **Palette** provides instant access to all available wireframe components. Components are organized into groups and can be expanded or collapsed as needed.

To add items to a wireframe you must first select a component from the **Palette**:

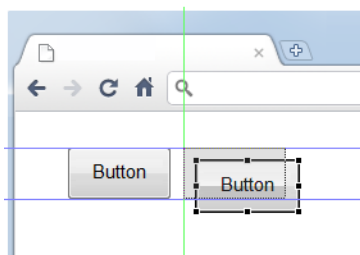


Once you have selected a component, place it in the wireframe by clicking in an open location:



Moving and Aligning Components

As you arrange items on the wireframe, temporary guides will appear to help you align and space your components:



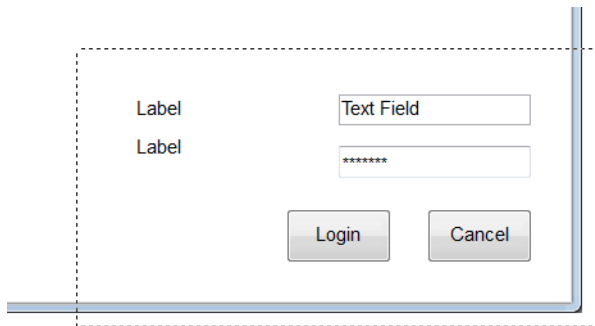
Blue guides indicate that two components have the same X or Y coordinate along an edge. Green guides indicate that the edges of two different components are five pixels apart.

Resizing Components

To resize components on the wireframe:

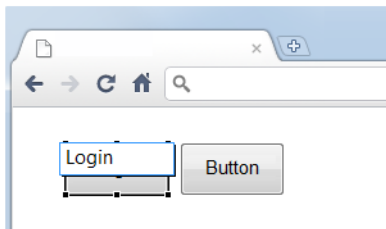
1. Select one or more components on the wireframe's surface. You can multi-select components by holding the **CTRL** or **SHIFT** key and clicking on components.
2. Resize components by dragging a component's handle.

Note: You can also multi-select components by dragging a marquee selection from the edges of the wireframe:



Direct Edit

Most wireframe components have a text label that can be edited. The quickest way to edit a component's label is to select the component and start typing:




A components name can also be modified in the [Properties view](#).

Adding Hyperlinks to Components

All wireframe components can be hyperlinked to external wireframes, artifacts or web URL's. This is especially useful if you want to convey a workflow that involves multiple pages or screens.

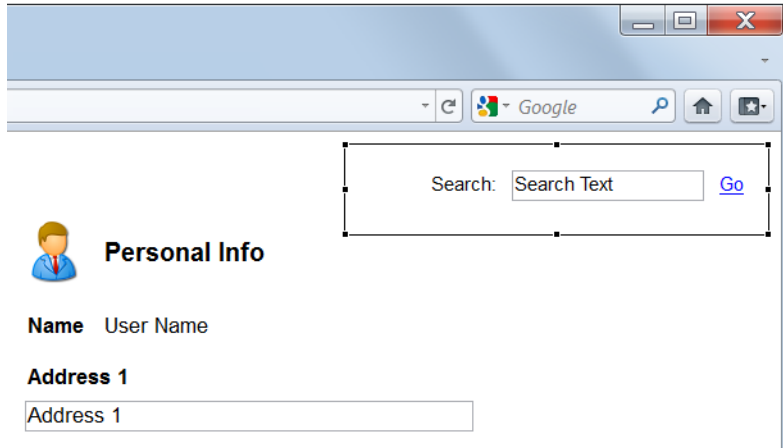
To create a hyperlink, simply:

1. Select a component on a wireframe.
2. Press **CTRL + K** on your keyboard or select the **Hyperlink** button  on the Axiom toolbar.
3. When the **Insert Hyperlink** dialog appears, select an existing artifact or enter a URL to an external web page.


To navigate to a hyperlink attached to a wireframe component, simply double-click on the component.

Extracting Standalone Wireframe Artifacts

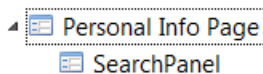
Often, you will want to use the same group of components in multiple wireframes. For example, in the following wireframe, it would be nice to be able to reuse the selected “Search” component elsewhere:



To extract a component as a stand-alone wireframe artifact:

1. Select the component on the [Wireframe Editor](#) to extract.
2. Click the **Convert to Standalone** button .

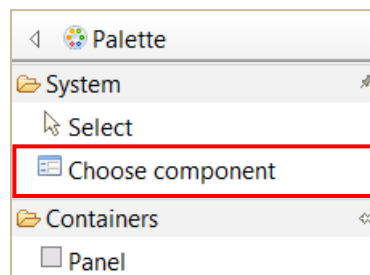
When a component is extracted, it will appear as a child of the current wireframe in the Artifact Explorer:



Embedding Standalone Wireframe Artifacts

Once you have created or extracted a stand-alone wireframe artifact, you can import it into other wireframes:

1. In the [Wireframe Editor](#) select the **Choose component** button from the **Palette**:



2. Click in the [Wireframe Editor](#) where you want to insert the component.
3. When the **Select Wireframe Artifact** dialog appears, select an existing wireframe artifact from the tree.
4. Select the **OK** button to embed the external component into your wireframe.

Toolbar

The wireframe toolbar provides access to the following commands:



Undo – Reverts the most recent change.



Redo – Select this command to redo an action that you undid.

Variable Width



Change the font family – Sets the font face of the selected component's label.

14



Change the font size – Sets the font size of the selected component's label.



Bold – Makes the selected component's label bold.



Italic – Makes the selected component's label italic.



Underline – Underlines the label of the selected component.



Text Color – Sets the foreground color of the selected component.



Background Color – Sets the background color of the selected component.



Hyperlink – Creates a hyperlink for the selected wireframe component.



Align Left – Aligns the label of the selected components to the left.



Align Center – Aligns the label of the selected components to the center.



Align Right – Aligns the label of the selected components to the right.



Convert to Standalone – Creates a standalone artifact on the **Artifact Explorer** tree. For more information, see: [Extracting Standalone Wireframe Artifacts](#).



Copy Wireframe as Image – Captures a screenshot of the wireframe. This action is especially useful if you want share a screenshot of a wireframe through email or some external document.




Align Left – Aligns the selected components to the left.





Align Center – Center aligns the selected components.



Align Right – Aligns the selected components to the right.

 **Align Top** – Aligns the top edges of the selected wireframe components.

 **Align Middle** – Aligns the selected wireframe components along their middle.

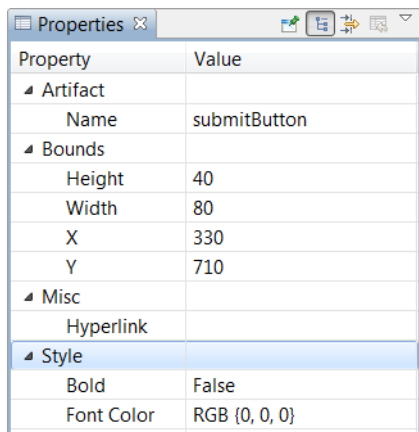
 **Align Bottom** – Aligns the bottom of the selected components.

 **Match Width** – Makes the selected components the same width.

 **Match Height** – Makes the selected components the same height.

Properties View

The **Properties** view displays the properties of the selected components. Select a control in the [Wireframe Editor](#) to view and edit its properties.



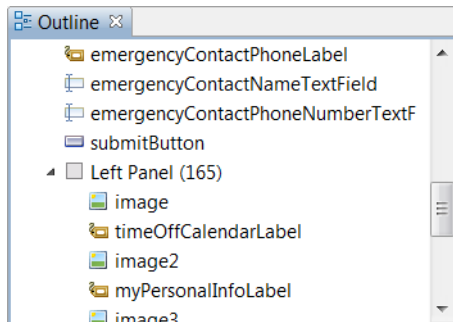
Property	Value
▲ Artifact	
Name	submitButton
▲ Bounds	
Height	40
Width	80
X	330
Y	710
▲ Misc	
Hyperlink	
▲ Style	
Bold	False
Font Color	RGB {0, 0, 0}

To open the **Properties** view, select **View->Properties** from the main menu bar. If you do not see the **Properties** menu item, switch to the [Wireframe Perspective](#).

When more than one component is selected, all common properties are displayed in the **Properties** view. When the selected components have different values for a given property the value of the primary selection will be displayed.

Outline View

The **Outline** view provides a hierarchical view of the relationship between all components in the [Wireframe Editor](#).



To view the **Outline** view, select **View->Outline** from the menu bar. If you do not see the **Outline** menu item, switch to the [Wireframe Perspective](#).

Select one or more components in the **Outline** view to select the corresponding component in the [Wireframe Editor](#).

Axiom Rules Language

Introduction

Poorly written requirements can often be interpreted by different readers in different ways. Ambiguous requirements lead to confusion for development teams, waste man-hours and will often necessitate a costly rewrite late in the development cycle.

The probability of requirements being misunderstood increases if your software is being developed using an off-shoring model. Developers and testers who do not fully understand the language spoken by a requirement's author may miss certain nuances that the requirement is meant to convey.

Often times, these requirements will be expressed as business rules that defines or constrains the behavior of the software being developed. Like other requirements, these business rules are susceptible to ambiguous language. For example, consider the following requirement for the "New User" screen of a banking system:

Address Validation - *When a new user is created he or she must have a valid address. If the address is not valid then an error message should be displayed.*

This requirement leaves a number of open questions: Who is creating this new user? Is this an external bank customer or a bank employee? What constitutes a valid address? When will the error message be displayed? Which error message will be displayed?

As we saw in the [previous section](#), Axiom Professional allows you to unambiguously define the structure and layout of a user interface by creating UI wireframes. For example, you could use Axiom to define a "New User" wireframe and an "Error Message" wireframe:

The first wireframe is a 'New User' registration form. It features a user icon and the title 'New User'. Below the title are input fields for 'Name', 'Address 1', 'City', 'State', and 'Zip', each with a corresponding label. A 'Submit' button is located at the bottom left of the form.

The second wireframe is an error message dialog box. It has a red 'X' icon in the top right corner and a red circle with a white 'X' icon on the left. The text inside the dialog reads: 'Invalid Address: The street name or number that you entered appears to be invalid.'

Once you have defined a wireframe, you can utilize Axiom Rules Language (ARL) to unambiguously define validation and behavioral requirements. For example, let's rewrite the ambiguous "Address Validation" requirement from above using ARL:

```
when New_User.submitButton is selected

if
  Customer and
  (New_User.address1.length > 100 or
   New_User.address1.text does not start with "one or more numbers")

trigger Invalid_Address_Error.show;
```


In plain English, this ARL snippet states that, "when a customer selects the submit button on the New User screen, show the Invalid Address Error if the address is greater than 100 characters or does not start with at least one number."

In the following sections, we will:

- Discuss how to create an ARL template and configure it to build rules for wireframes and textual artifacts.
- Give an overview of the ARL language.
- Provide a walkthrough the features of the ARL editor.

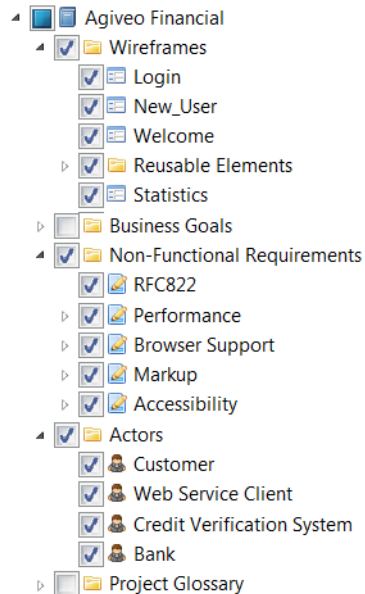
Axiom Rules Language Templates

To write requirements using ARL, you must first create an Axiom Rules Language template:

1. Right-click on a folder in the [Artifact Explorer](#).
2. Select **New->Template...** from the popup menu.
3. When the **New Template** wizard appears, enter a name for your ARL template in the **Name** field.
4. Select the **Axiom Rules Language**  content type from the **Content Type** list.
5. Click the **Next >** button to advance to the next page.
6. When the **Select Template Context** page appears, select the locations in the system where you want to allow ARL artifacts to be created.
7. Press the **Next >** button to advance to the next page.
8. The **Template Attributes** page allows you to associate attributes with your ARL. For more information on how to associate attributes with a template, see the [Creating a Template](#) section.
9. Click the **Finish** button to create the ARL template.

Configuring Axiom Rules Language Templates

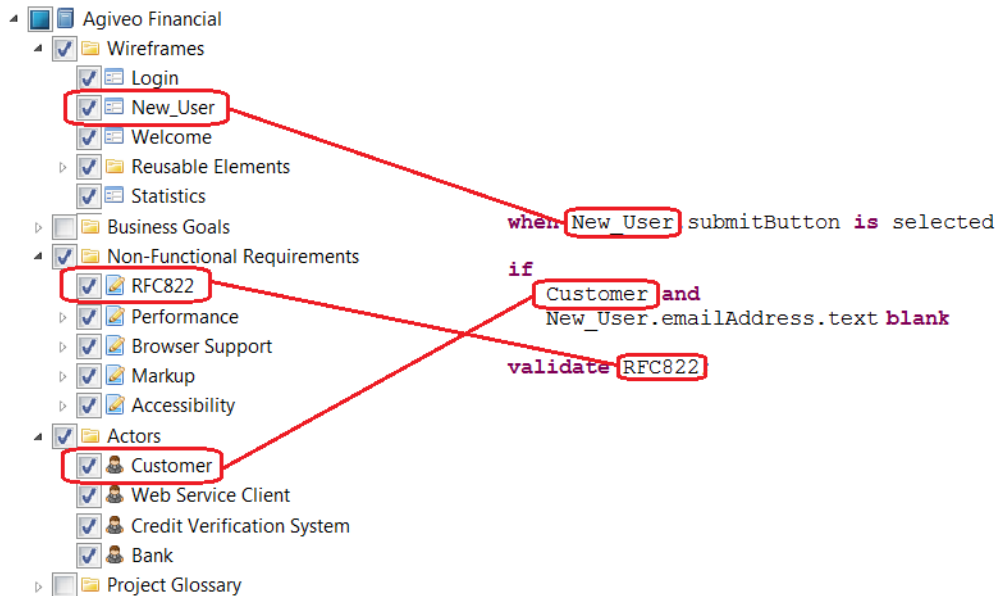
Before you can create ARL artifacts with an ARL template, you will need to configure the template to reference the names of artifacts in your project. For example, let's say that you configure your ARL template to point to the "Wireframes", "Non-Functional Requirements" and "Actors" folders in the Agiveo Financial sample project:




You could then write ARL that references these artifacts by name:

```
when New_User.submitButton is selected
if
  Customer and
  New_User.emailAddress.text not blank
validate RFC822;
```

The following image further illustrates the relationship between ARL code and the artifacts it references:



To configure an ARL template to reference artifacts in your project:

1. Locate an ARL template in the [Artifact Explorer](#).
2. Double-click the ARL template to open it in the editor.
3. Place a check mark next to the artifacts that you want your ARL code to reference.
4. Press the **Save** button  on the Axiom toolbar.

Creating Axiom Rules Language Artifacts

Once you have defined an ARL template and configured it to reference artifacts, you can use it to create ARL artifacts:

1. Right-click on location in the [Artifact Explorer](#) where you want to create a new ARL artifact.
2. Select **New** from the popup menu.
3. From the popup submenu, select an ARL template.
4. Enter a name for your ARL artifact in the **Name** field.
5. Press **Finish**.

Understanding Axiom Rules Language

A rule written in ARL typically describes an **event** followed by a **change in the system**. For example:

```

when New_User.finishButtton is selected
trigger Confirmation.show;

```

Here the **event** is the “Finish” button being pressed on the “New User” screen. The **change in the system** is that the “Confirmation” screen is displayed.

Note: A rule statement must always ends with a semicolon.

If Statements

An **if** statement can be added to a rule to specify a condition that must be true before the change in the system can occur. To illustrate, let's add an **if** statement to the previous example:

```
when New_User.finishButton is selected
if New_User.nameField not blank
trigger Confirmation.show;
```

Now we have a rule that states that the name field must be populated before the confirmation screen can be displayed.

Conditional Operators

The **and** and **or** operators can be added to most statements in ARL. For example:

```
when
  New_User.finishButton is selected or
  New_User.nextPageButton is selected

if
  New_User.nameField.text not blank and
  New_User.addressField.text not blank and
  New_User.emailAddressField.text not blank

trigger Confirmation.show;
```

Set Keyword

The **set** keyword can be used to specify that a property must be set when an event occurs. For example, the following rule defines a requirement that the “name” and “age” fields should be reset when the “Clear” button is selected:

```
when New_User.clearButton is selected

set
  New_User.nameField.text = ""
  New_User.ageField.text = 0;
```

Validate Keyword

The **validate** keyword can be used to define a requirement for the system at a given point in time. For example:

```

when New_User.New_User is opened
validate
    New_User.nameField.maxCharacters = 200
    New_User.addressField.maxCharacters = 200
    Accessibility;

```

After reading this rule, a tester would understand that, when the “New User” screen is opened, he should only be able to enter a maximum of 200 characters into the name and address fields. Furthermore, the screen must comply with the accessibility requirements for the project.

Using Keyword

The **using** keyword defines a scope for a set of rules. The following example defines two rules for a “Login” screen:

```

using Login
{
    when userID is unfocused
    if userID.text = ""
    trigger userID.focus
    set userID.background = "yellow";

    when userID is closed
    if userID.width not ""
    trigger password.set_focus;
}

```

Because we have utilized the **using** keyword, we do not have to specify that we talking about the Login screen on every line. For example, we don’t have to write:

```

when Login.userID is unfocused

```

... we can simply write:

```

when userID is unfocused

```


Comments

ARL provides two ways of adding comments. First, you can use block comments that start with “/*” and end with “*/”. For example:

```
/*  
 * When the finish button is selected  
 * and the name field is not blank,  
 * show the save confirmation.  
 */  
when New_User.finishButton is selected  
if New_User.nameField not blank  
trigger Confirmation.show;
```

You can also use end-of-line comments that begin with “//”:

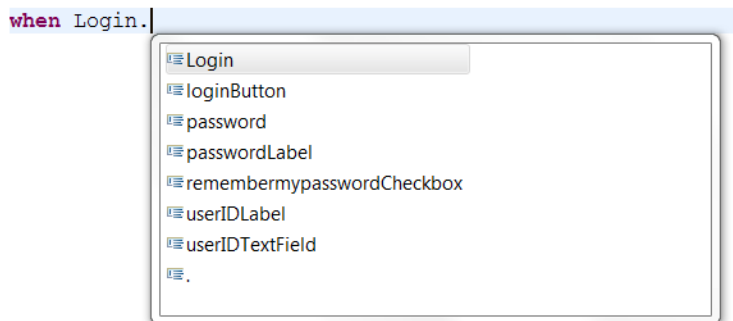
```
when New_User.finishButton is selected // when finish selected  
if New_User.nameField not blank // and the name is valid  
trigger Confirmation.show; // show save confirmation
```

Axiom Rules Language Editor

In this section, we will discuss the features of the Axiom Rules Language editor.

Content Assist

In the ARL editor press **CTRL + Space** to open a list of available code completions:



Use the mouse or the keyboard (**Up Arrow**, **Down Arrow**, **Page Up**, **Page Down**, **Home**, or **End**) to navigate and select lines in the content assist list.

Clicking or pressing the **Enter** key on a selected line inserts the line into the editor.

Errors

Errors in ARL will be underlined with a red line. Hover over an error to obtain the error message in a tooltip:

```
when Login is submitted
```

Couldn't resolve reference to Event 'submitted'.

Navigate to a Referenced Artifact

To navigate to an artifact referenced in ARL, hold down the **CTRL** key and hover over the element. When done correctly, the element will become a hyperlink:

```
when New_User.submitButton is selected  
  
if  
  Customer and  
  New_User.emailAddress.text not blank  
  
validate RFC822;
```

Click the hyperlink to open the referenced artifact in a separate editor.

Linking

Large scale development projects often require the generation of thousands of requirements, test cases and other textual artifacts. These artifacts are often written collaboratively by domain experts and stakeholders who are geographically distributed.

As these complex projects evolve, teams often face a challenge when trying to understand the relationship between disparate sets of artifacts. When these relationships are not understood, the quality of software often suffers. Decisions are made regarding one set of artifacts without understanding the impact on other artifacts.

Requirement traceability is an important discipline of requirements engineering. With a well defined set of traces, teams can follow the lifecycle of a requirement from its inception, through its development and specification, to its eventual deployment. And, with a high degree of trace fidelity, teams can easily determine where gaps in requirements and other specifications exist.

Axiom is a powerful tool and flexible for building and discovering the relationships between artifacts. Axiom allows you to create not only traces but *any* type of relationship that makes sense for your project. This means that with Axiom you can, for example, define:

- A “validated by” relationship between a requirement and test case.
- An “extends” relationship between two use cases.
- An “includes” relationship between a set of glossary terms and document.
- A “prototype of” relationship between a use case and UI wireframe.

In Axiom we use the more term “link” to define a semantic relationship between two artifacts.


In this chapter we will describe how to define link templates in Axiom and how to use these templates to create links between your project’s artifacts.



See our comprehensive [online tutorial](#) on linking.

Creating Link Templates

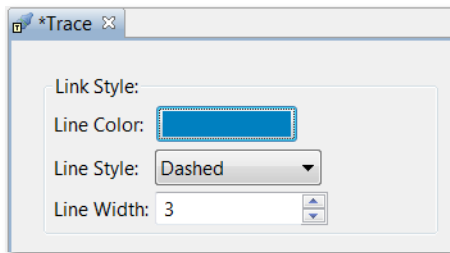
As we described in the section on [Artifact Templates](#), almost every object that you create in Axiom is created from a user-defined template. Here is how you create a user-defined template for links:


1. In Axiom, right-click on a folder in the [Artifact Explorer](#) view.
2. Select **New->Template...** from the popup menu.
3. When the **New Template** wizard appears, enter a name for your link template in the **Name** field.
4. Select **Link**  from the **Content Type** list.
5. Select the **Change Icon...** button to change the links icon.
6. Click the **Next >** button to advance to the next page.
7. When the **Select Template Context** page appears, select the locations in the system where instances of the link template can be created.
8. Press the **Finish** button to create the link template.

Modifying Link Style

Every link template has its own set of style attributes. These attributes define how a link will look when it is displayed in Axiom's **Linking Surface**. To modify a link's style attributes:

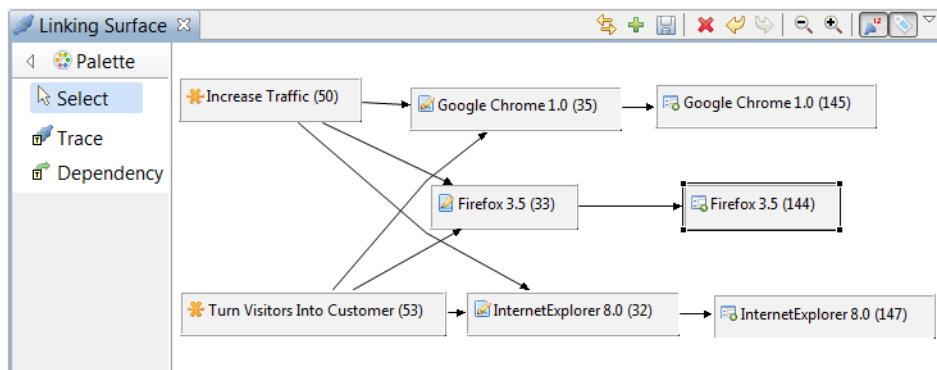
1. Locate the link template that you wish to modify in the **Artifact Explorer**.
2. Double-click on the link template to open the editor.
3. Modify the style attributes for the template:



4. Press the **Save** button  to save your changes.


Creating Links with the Linking Surface

Axiom's **Linking Surface** provides an easy way to discover and create links between artifacts.




To display the **Linking Surface**, select **View->Linking Surface** from Axiom's menu bar.

Adding Artifacts

Before you add artifacts to the linking surface, you should make sure the **Link with Artifact Explorer** button  is unchecked. This will prevent the linking surface from refreshing as you select artifacts in the **Artifact Explorer**.


To add artifacts to the **Linking Surface**:

1. Click the **Add Artifacts** button  from the toolbar.
2. When the **Select Artifacts to Link** dialog appears, select one or more artifacts (use either the **CTRL** or **SHIFT** key to multi-select artifacts).
3. Press **OK**.

Note: you can also add artifacts to the linking surface by dragging them from the [Artifact Explorer](#).


Adding External URLs

Axiom allows artifacts to be linked to external URLs. To add a URL to the linking surface:

1. Click the **Add Artifacts** button  from the toolbar.
2. When the **Select Artifacts to Link** dialog appears, select the **Web Page** tab.
3. Enter a URL in the **Address** field.
4. Optional: Enter a friendly name for the URL in the **Text to Display** field.
5. Press **OK**.

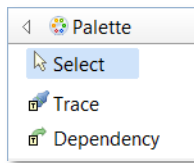
You can also add a URL to the linking surface by simply copying the URL from your browser and pasting it into the **Linking Surface**.

Deleting Artifacts

To remove artifacts from the **Linking Surface**, select the artifact(s) and press the **DELETE** key on the keyboard or the **Delete** button  on the toolbar.



Linking Artifacts

After you add artifacts to the **Linking Surface**, Axiom will check to see if there are any templates that can be used to create links between artifacts. Axiom will add these link templates as entries on the **Linking Surface's Palette**:



If you have previously created a link template and it does not appear in this **Palette** then you may need to adjust the template's context. See [Modifying a Template](#) for information on how to change a template's context.


To link artifacts, simply:

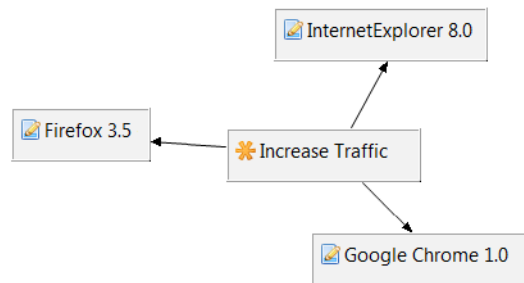
1. Select a link type from the **Palette**.
2. Click on an artifact in the **Linking Surface**.
3. Click on another artifact in the **Linking Surface**.
4. Repeat steps 2 and 3 to link additional artifacts.
5. To return to selection mode, click the **Select** item  in the **Palette**.
6. Select the **Save** button  on the **Linking Surface** toolbar to save the links.


Discovering Links

The **Linking Surface** can be used to discover and browse the links between artifacts.

To discover the links attached to an artifact:

1. Make sure that the **Link with Artifact Explorer** button  is depressed.
2. Select an artifact in the **Artifact Explorer**. The first level of links for the selected artifact will be displayed in the **Linking Surface**:



3. Press the  **Show Hidden Link Count** button to show the number of links that are not currently displayed in the **Linking Surface**. For example, the following requirement has three links that are not being displayed:



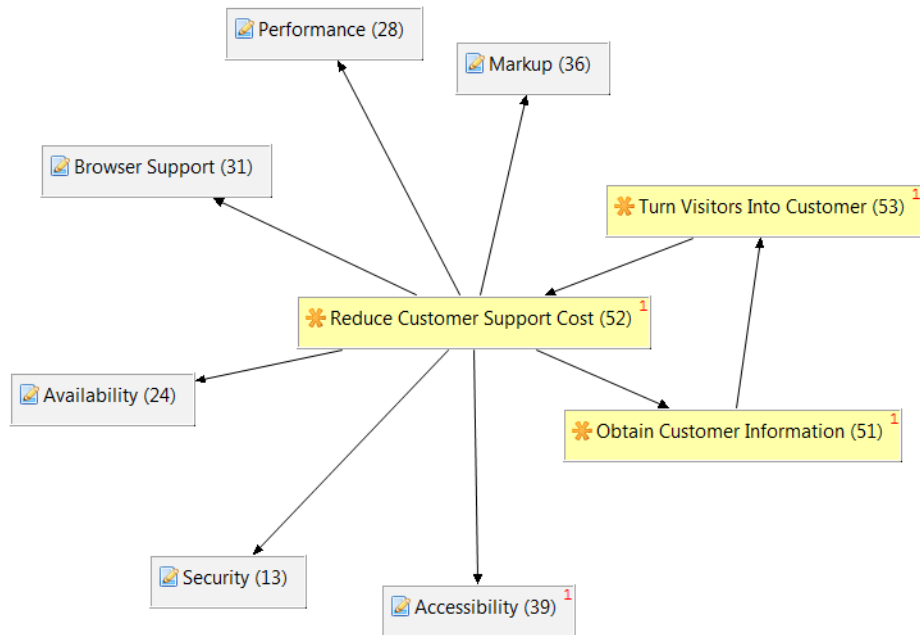
4. To expand the hidden links for an artifact, hold down the **ALT** key and click on the artifact.

As you expand links to show more artifacts, the **Linking Surface** may become cluttered and difficult to read. When this happens, simply press **CTRL + L** or select the **Layout** command from the **Linking Surface's** context menu to arrange the artifacts.

Searching the Linking Surface

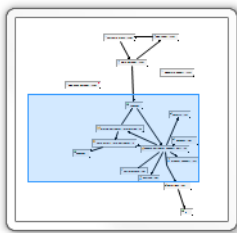
If you need to quickly find an artifact in the **Linking Surface**, simply start typing the artifact's name:

Find: custom



Thumbnail Window




The **Linking Surface**'s thumbnail view provides an easy way to navigate large graphs of linked artifacts:










To toggle the thumbnail view on/off, press **CTRL + SPACE**.

Linking Surface Commands

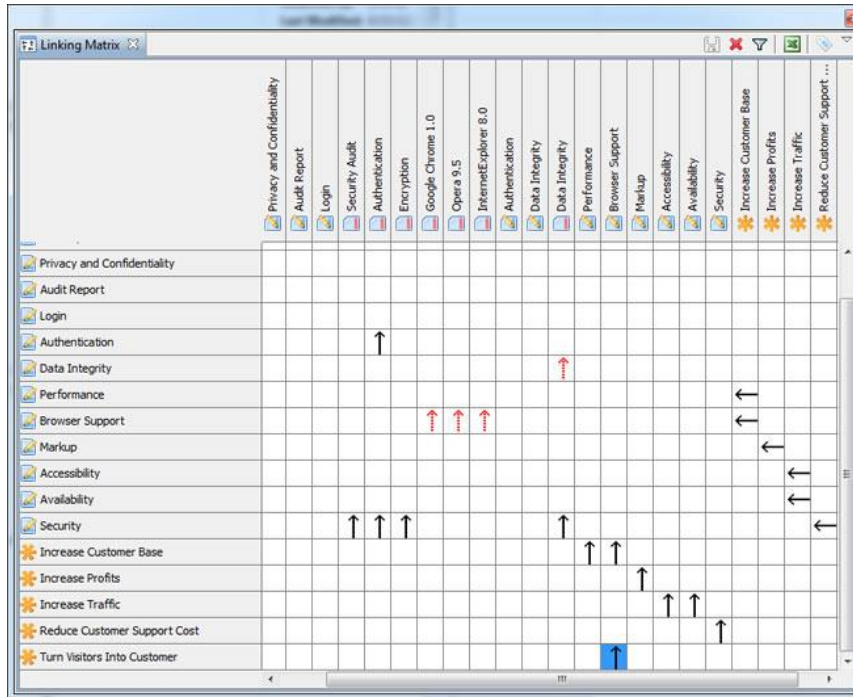
The **Linking Surface** toolbar contains the following commands:

-  **Link with Artifact Explorer** – When this button is depressed, the **Linking Surface** will change as you select artifacts in the **Artifact Explorer**.
-  **Add Artifacts** – Select this button to add one or more artifacts or URL's to the **Linking Surface**.
-  **Save** – The **Save** button saves the creation and deletions of artifact links.

-  **Delete**— Removes the selected artifacts from the **Linking Surface**.
-  **Undo** – Reverts the most recent change.
-  **Redo** – Select this command to redo an action that you undid.
-  **Zoom Out** – Select **Zoom Out** to reduce the view of the **Linking Surface**. Note: If you have a mouse with a wheel, hold down the **CTRL** key, and then turn the wheel to zoom in or out.
-  **Zoom In** – Select **Zoom In** to increase the view of the **Linking Surface**.
-  **Show Hidden Link Count** – Displays a count of the number of links that are connected to an artifact that are not currently displayed.
-  **Show Artifact IDs** – Depress this button to display the unique ID of artifacts displayed in the **Linking Surface**.

Linking Matrix

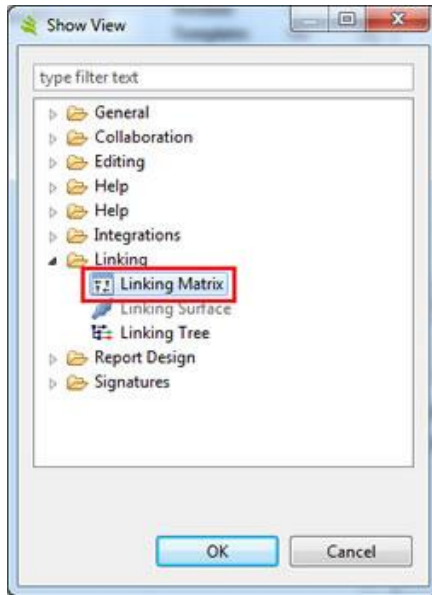
The **Linking Matrix** view provides a tabular view of the links (typically traces) between Axiom artifacts.



Learn more about the Axiom Linking Matrix by following the online tutorial.


Displaying the Linking Matrix

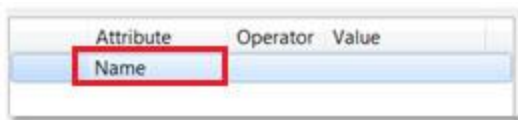
To display the **Linking Matrix** view, select **View->Linking Matrix** from the Axiom menu bar. Optionally, you can open the **Linking Matrix** by selecting **View->Other...** and selecting the Linking Matrix node:



Filtering and Sorting

When opened, the **Linking Matrix** view will initially be empty. To view and create links, you will need to define a filter:

1. Click the **Edit Filters**  button on the **Linking Matrix's** toolbar.
2. If you wish to provide a separate filter for the rows and columns then uncheck the **Use the same filter for rows and columns** checkbox.
3. Press the **Select...** button to select a sub-tree of artifacts to filter.
4. If you want to include all artifacts in the selected sub-tree, press the **OK** button to return to the **Linking Matrix** view; otherwise, click the **New** button to add a new filter condition.
5. Click the first row in the **Attributes** column to select an attribute:

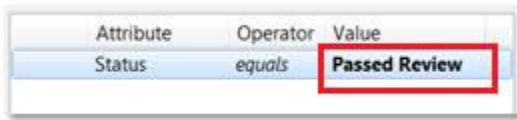


6. Select an attribute from the attribute list.
7. Click the first row in the **Operator** column:

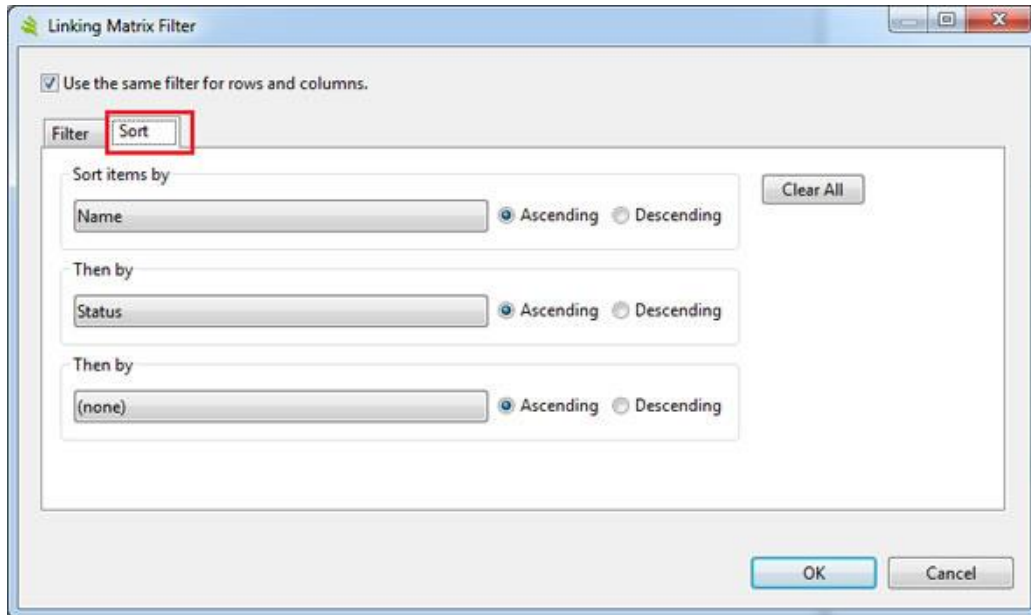


8. Select an operator from the list.

- Click the first row in the **Value** column:



- Select or enter a value.
- Add additional conditions or select the **OK** button to apply the filter.
- To specify which artifact fields to sort on, use the **Sort** tab:

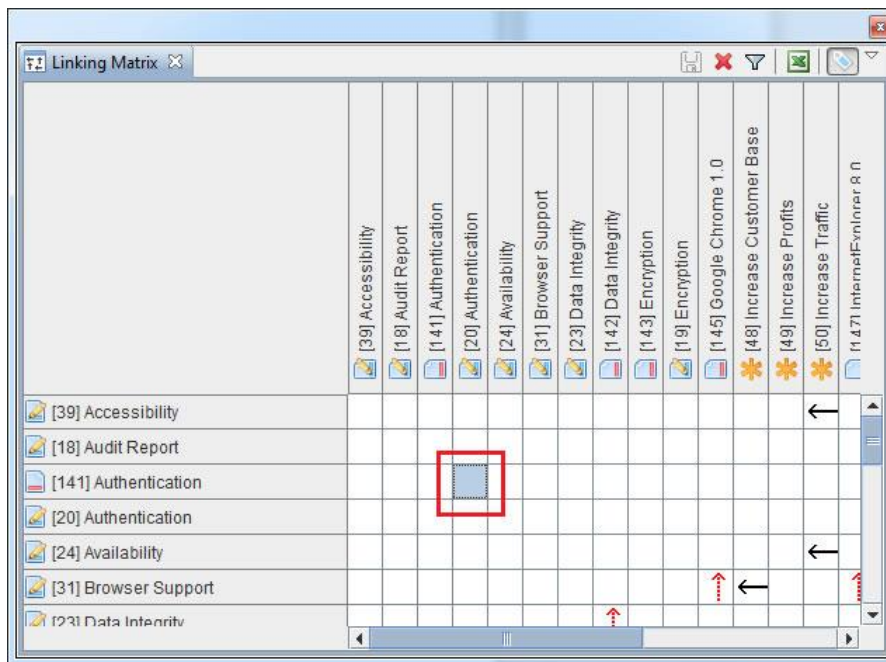


- Press the **OK** button to populate the **Linking Matrix**.

Creating New Links

To create a link between two artifacts:

- Double-click on a cell in the linking matrix:






- When the **New Link** dialog appears, select the type and direction of the link that you wish to create:



- Press the **OK** button to create the link.

Commands

The **Linking Matrix** toolbar contains the following commands:

-  **Save** – Saves all modifications to the **Linking Matrix**.
-  **Delete** – Deletes the selected link.
-  **Filter** – Click the **Filter** button to select a sub-tree of artifacts for the matrix.



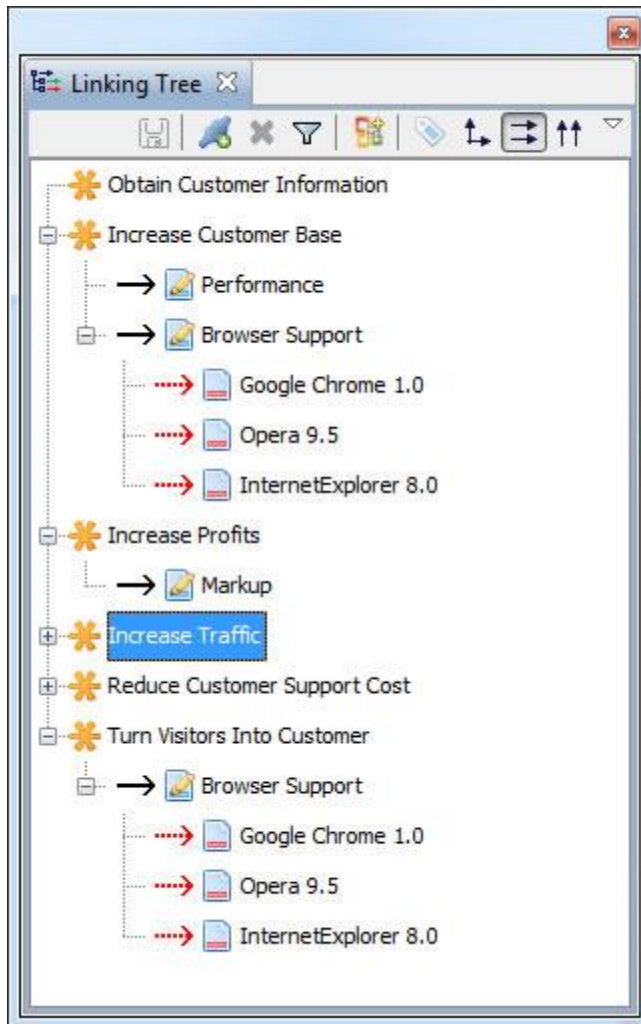
Export to Excel – Exports the **Linking Matrix** to Microsoft Excel.



Show Artifact IDs – Depress this button to display the unique ID of artifacts displayed in the **Linking Matrix**.

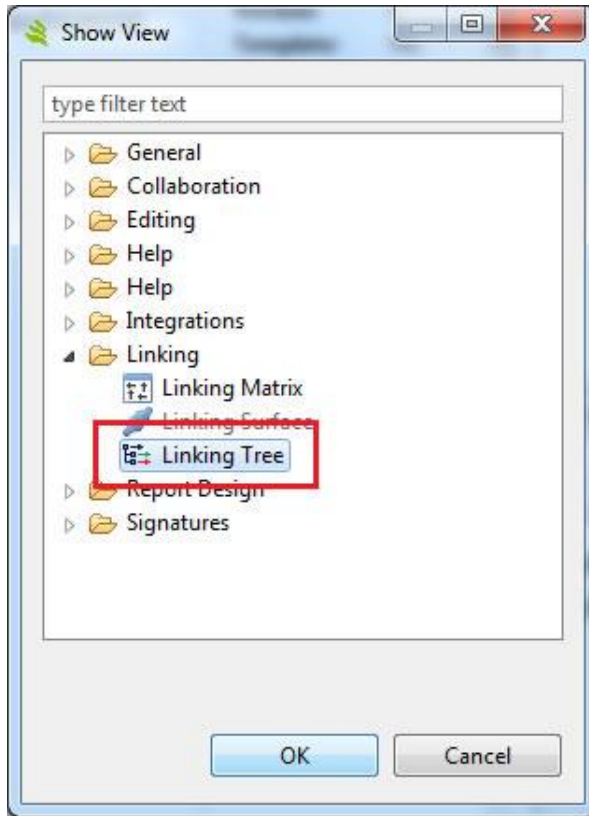
Linking Tree

The **Linking Tree** view provides a hierarchical view of links (typically traces) between Axiom artifacts.




Displaying the Linking Tree

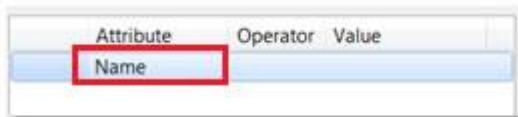
To display the **Linking Tree** view, select **View->Linking Tree** from the Axiom menu bar. Optionally, you can open the open the **Linking Tree** by selecting **View->Other...** and selecting the **Linking Tree** node:



Filtering and Sorting

When opened, the **Linking Tree** view will initially be empty. To view and create links, you will need to define a filter:

1. Click the **Edit Filters**  button on the **Linking Tree's** toolbar.
2. If you wish to provide a separate filter for the rows and columns then uncheck the **Use the same filter for rows and columns** checkbox.
3. Press the **Select...** button to select a sub-tree of artifacts to filter.
4. If you want to include all artifacts in the selected sub-tree, press the **OK** button to return to the **Linking Tree** view; otherwise, click the **New** button to add a new filter condition.
5. Click the first row in the **Attributes** column to select an attribute:

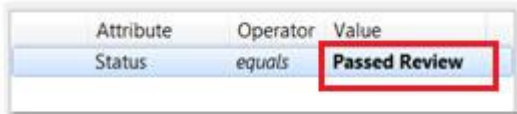


6. Select an attribute from the attribute list.

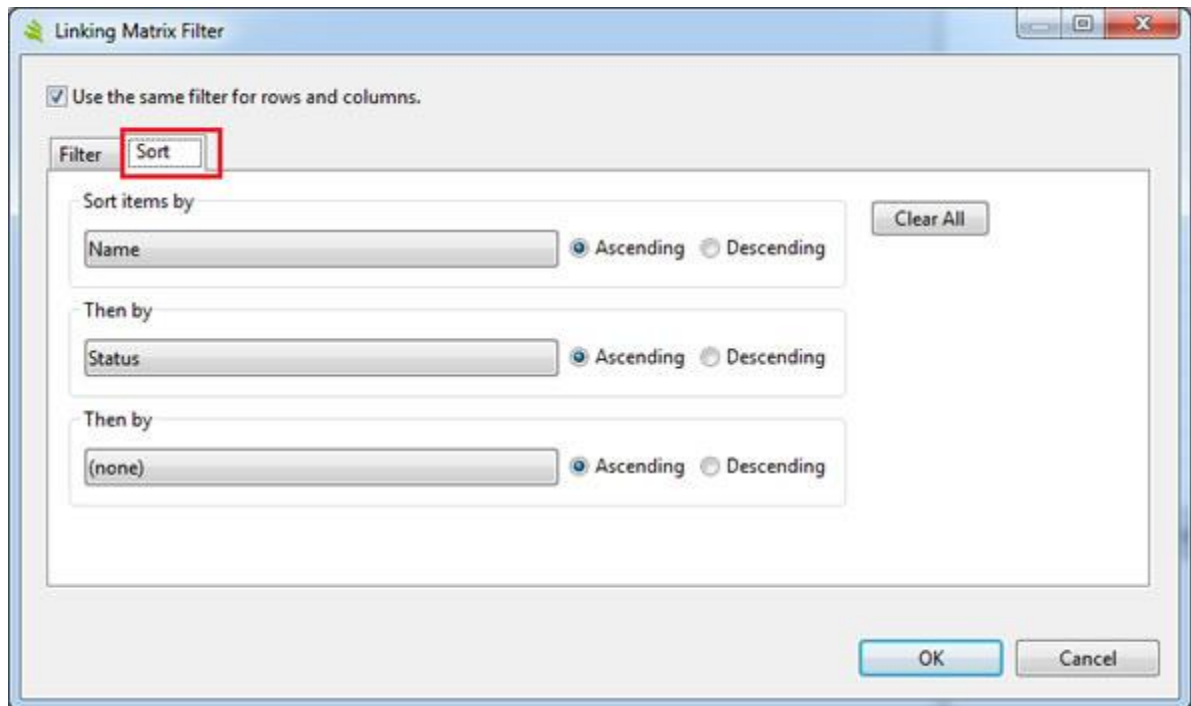
- Click the first row in the **Operator** column:



- Select an operator from the list.
- Click the first row in the **Value** column:



- Select or enter a value.
- Add additional conditions or select the **OK** button to apply the filter.
- To specify which artifact fields to sort on, use the **Sort** tab:



- Press the **OK** button to populate the **Linking Tree**.

Creating New Links










- To create a link between two artifacts:
- Right-click on a node in the **Linking Tree**.
- Select **Create Link** from the content menu.
- When the **New Link** dialog appears, select the type and direction of the link that you wish to create:



5. Press the **OK** button to create the link.


Commands

The **Linking Tree** toolbar contains the following commands:

-  **Save** – Saves all modifications to the **Linking Tree**.
-  **Create New Link** - Creates a new link to the selected artifact node.
-  **Delete** – Deletes the selected link.
-  **Filter** – Click the **Filter** button to select a sub-tree of artifacts for the **Linking Tree**.
-  **Export to Office Dataset** - Exports the **Linking Tree** to a dataset that can be consumed by **Microsoft Office** Applications.
-  **Show Artifact IDs** – Depress this button to display the unique ID of artifacts displayed in the **Linking Tree**.
-  **Show All Links** - Show both inbound and outbound links on the **Linking Tree**.
-  **Show Only Outbound Links** - Click this button to show outbound links on the **Linking Tree**.
-  **Show Only Inbound Links** - Click this button to show inbound links on the **Linking Tree**.

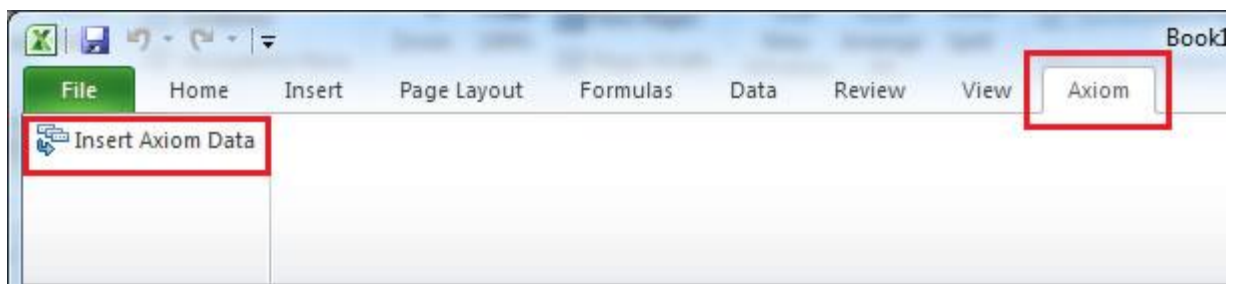
Exporting Links to Microsoft Excel

The **Linking Tree** allows trees of links to be exported as a **Microsoft Office** dataset:

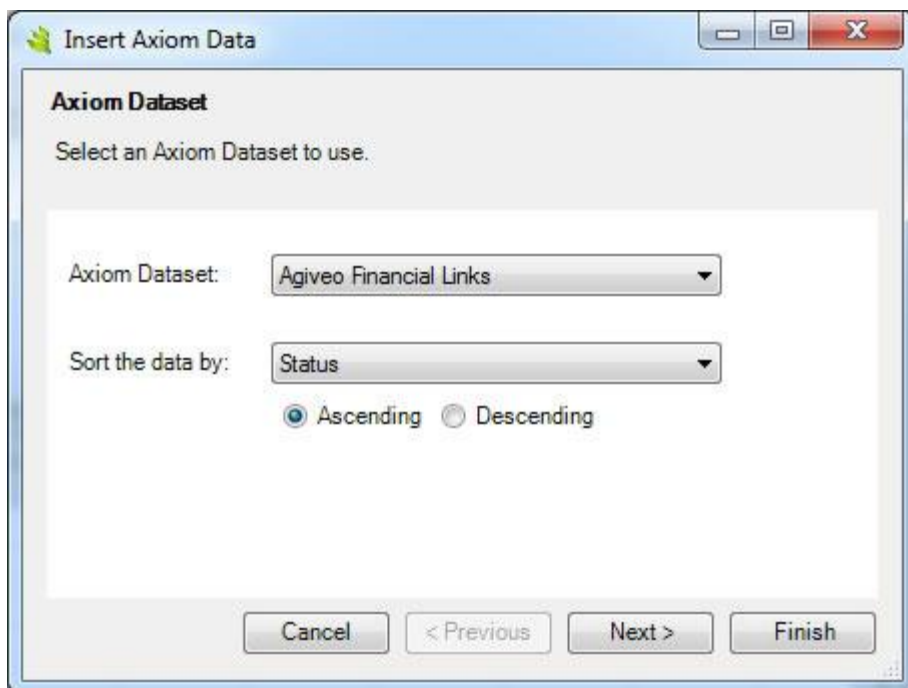
6. Press the **Export to Office Dataset**  button on the toolbar.
7. When the **Export to Office Dataset** dialog appears, select the depth of the tree to export with the **Radio tree depth** field.
8. Enter the name of the new **Office Dataset** or pick an existing dataset to modify.
9. Press the **OK** button to create the dataset.

Viewing Artifact and Link Data in Microsoft Excel

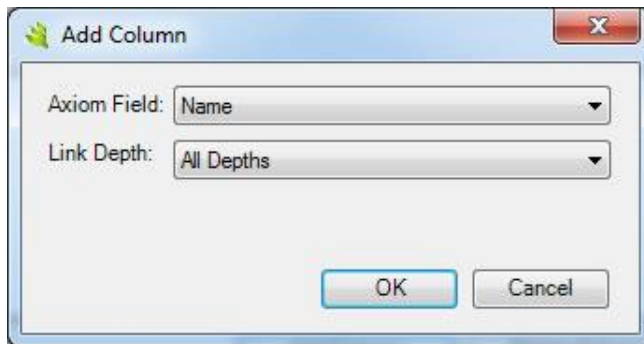
1. Open Microsoft Excel.
2. Click the cell where you want to insert Axiom data.
3. Select the **Axiom Ribbon** and then select **Insert Axiom Data** button:



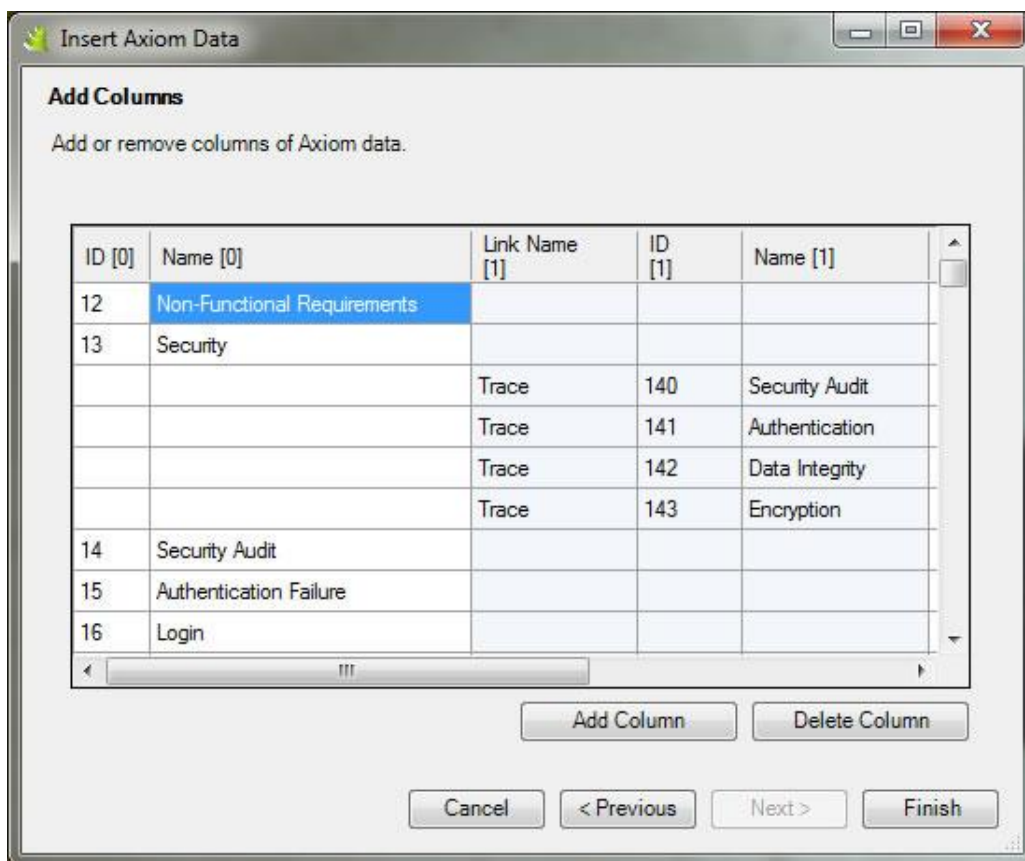
4. When the **Insert Axiom Data** wizard appears, choose an **Axiom Dataset**:



5. Press the **Next >** button.
6. On the **Add Columns** page, press the **Add Column** button.
7. When the **Add Column** dialog appears, select the Axiom field to be inserted:



8. The **Link Depth** combo allows you to choose which level(s) of the Axiom linking tree will be included in the workbook. If you select the **All Depths** item then all levels of the link tree will be shown in the workbook.
9. Press the **OK** button.
10. In the preview window, column order can be changed by dragging and dropping column headers:



11. Click the **Finish** button to insert the Axiom data into your Excel workbook.

Adding External Artifacts

Axiom allows you to import external files and manage them like you would any other artifact. This will be especially usefully if, for example:


- You have external requirements in Microsoft Word document.
- You have a set of use case diagrams that you would like to associate with your non-functional requirements stored in Axiom.
- You have a PDF specification from an external stakeholder.

In this section we will discuss how to:

- Create file templates.
- Use file templates to import external files.
- Make and save modification to imported files.

Creating a File Template

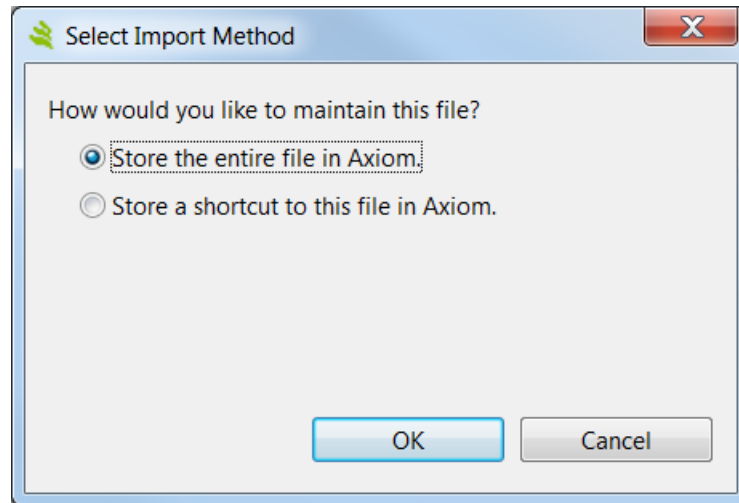
As we discussed in the section on [artifact templates](#), all artifacts that are displayed in Axiom's **Artifact Explorer** have an associated template; therefore, to import a file into Axiom, you must first have a file template. To create a file template:

1. In Axiom, right-click on a folder in the [Artifact Explorer](#) view.
2. Select **New->Template...** from the popup menu.
3. When the **New Template** wizard appears, enter a name for your template in the **Name** field.
4. Select the **File**  content type from the **Content Type** list.
5. Click the **Next >** button to advance to the next page.
6. When the **Select Template Context** page appears, select the locations in the system where instances of the file template can be created.
7. Press the **Next >** button to advance to the next page.
8. The **Template Attributes** page allows you to associate attributes with the files that you import. For more information on how to associate attributes with a template, see the [Creating a Template](#) section.
9. Click the **Finish** button to create your file template.

Importing External Artifacts

Once you have [defined a file template](#), you can use the template to import external files:

1. Right-click on location in the [Artifact Explorer](#) where you want to import the new artifact.
2. Select **New** from the popup menu.
3. From the popup submenu, select the name of the file template that will be used to create your artifact.
4. When the file chooser appears, select the file that you wish to import.
5. Press **OK**.
6. The **Select Import Method** dialog appears.



7. Choose whether you want to import the entire file into Axiom or simply create a link to the file. The second option is useful if you want to keep the file on your company's file server but maintain a link to the file inside of Axiom.
8. Press **OK** to import the file into Axiom (or create a link).
9. The file artifact appears in the **Artifact Explorer**.


Viewing and Editing File Artifacts

To view and edit a file artifact, simply double-click on it in the **Artifact Explorer**. The file will be opened with the default system editor for your operating system. Once a file is opened, you can modify the file as you would any other file.

Saving modifications to a "fully imported" file artifact is a two-step process: First, save the file in the default editor, then save the associated artifact in Axiom.

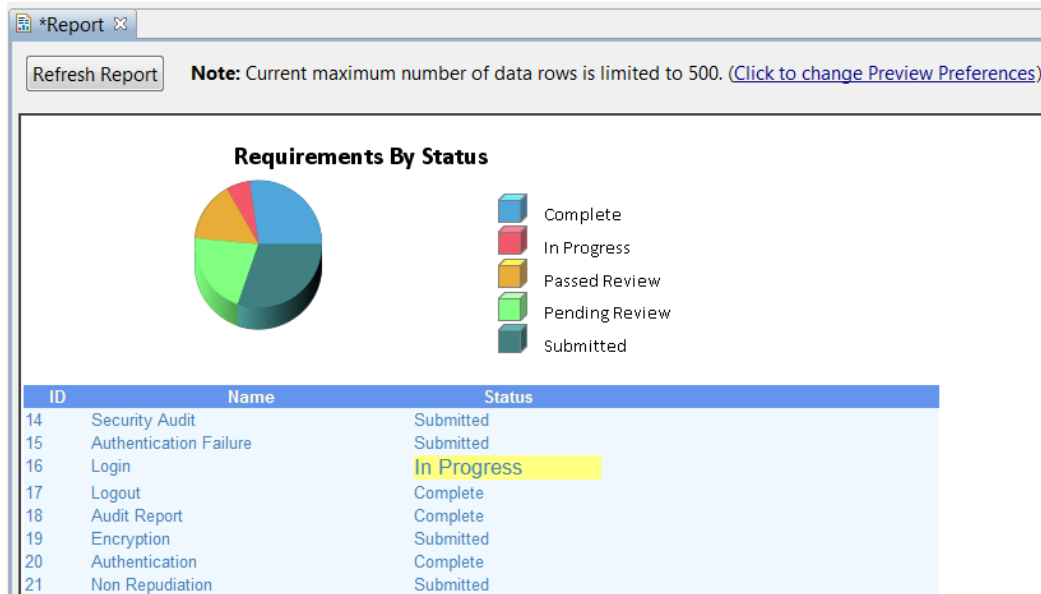
Viewing Previous Versions

You can use Axiom's [History view](#) to view previous versions of the selected file artifact:

1. Select **View->History** from Axiom's menu bar.
2. Press the **Show history for selected artifact** button .
3. After the **History** table is populated, double click on a row to view a particular version of the file artifact.

Reports

Axiom integrates seamlessly with the Eclipse BIRT (Business Intelligence & Reporting Tools) to provide custom reporting on artifact data. BIRT reports are maintained in Axiom and can be exported to a number of formats including: HTML, Microsoft Word and PDF.



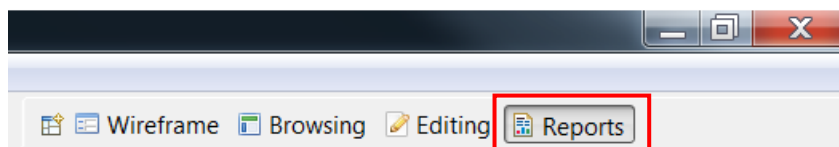
Learn how to use Axiom's BIRT integration with our [online tutorial](#).

Creating a BIRT report in Axiom requires five steps:

1. Creating a [report template](#).
2. Creating a [report artifact](#).
3. Defining a report [data set](#).
4. [Report layout](#).
5. Export.


Reports Perspective

Axiom's **Reports** perspective provides a set of views and a layout that is optimized for working with reports. To switch to the **Reports** perspective, simply click the **Reports** button on Axiom's perspective bar:



Creating Report Templates

To create a BIRT report in Axiom, you will need to use a report template. If you haven't already created a report template:

1. Right-click on a folder in the [Artifact Explorer](#) view.
2. Select **New->Template...** from the popup menu.
3. When the **New Template** wizard appears, enter a name for your report template in the **Name** field.
4. Select the **Report**  content type from the **Content Type** list.
5. Click the **Next >** button to advance to the next page.
6. When the **Select Template Context** page appears, select the locations in the system where instances of this report template can be created.
7. Press the **Next >** button to advance to the next page.
8. The **Template Attributes** page allows you to associate attributes with your report. For more information on how to associate attributes with a template, see the [Creating a Template](#) section.
9. Click the **Finish** button to create your report template.

Creating Report Artifacts

Once you have defined a [report template](#), you can use it to create reports:

1. Right-click on location in the [Artifact Explorer](#) where you want to create a report.
2. Select **New** from the popup menu.
3. From the popup submenu, select a report template.
4. Enter a name for your report in the **Name** field.
5. Press **Finish**.


Defining Report Data Sets

Data sets define which Axiom artifacts and fields will be included in your reports. To create a data set:

1. Open a report.
2. Select **Data->New Data Set->New Data Set**.
3. Once the **New Data Set** wizard appears, enter a name for your data set in the **Data Set Name** field.
4. Click the **Next >** button.
5. On the **Axiom Filter** page, click the **Select...** button.
6. When the **Select Root Artifact** button appears, select an artifact from the tree. Note: The descendants of the selected artifact will be included in the data set.
7. Press the **OK** button.
8. If you want to apply an additional filter to the selected artifacts then press the **New** button to create a new filter condition.
9. Once you are satisfied with your filter, press the **Finish** button.
10. When **Edit Data Set** dialog appears, select **OK**.

Once you have defined a data set, you can insert it into a report's layout:

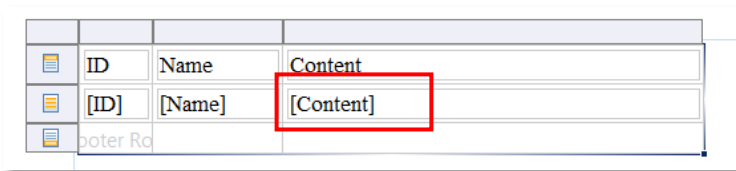
1. If the **Outline** view is not visible, open it by selecting **View->Outline** from the menu bar.
2. Locate your data set in the **Outline** view.
3. Right-click on the data set and select **Insert in Layout** from the context menu.

4. Once your dataset has been inserted into the report body you can delete unneeded columns:
 - a. In the **Outline** view, select the **Table**  node from the tree.
 - b. In the report body, right-click on the header of the column to remove.
 - c. Select **Delete** from the context menu.

Laying Out Reports

BIRT has a rich set of layout and formatting tools. For a complete reference and walkthrough of this functionality, please consult the [Eclipse BIRT](#) documentation.

If you want to create a report with Axiom's content field then you should be aware that this field may display raw HTML when it is previewed or exported. For example:



	ID	Name	Content
	[ID]	[Name]	[Content]

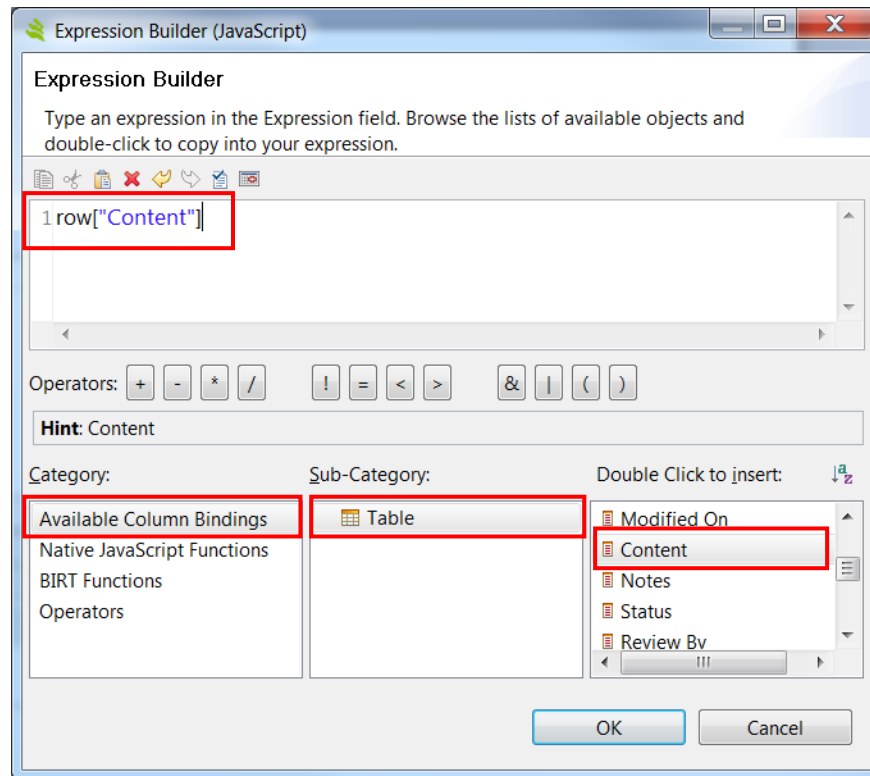
...may display like this when previewed:

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
<html><head></head>

<body><h4 style="color: rgb(0, 64, 128);">Goal</h4><h4><span style="font-weight:
</body></html>
```

To correct this problem, take the following steps:

1. Right-click on the "[Content]" field in the **Layout** view.
2. Select **Delete** from the popup menu.
3. Right-click on the empty cell where the "[Content]" field was previously.
4. Select **Insert->Dynamic Text** from the popup menu.
5. When the Expression Builder dialog is displayed:
 - a. Select **Available Column Bindings** from the **Category** list.
 - b. Select **Table** from the **Sub-Category** list.
 - c. Double-click on the **Content** entry in the **Double Click to insert list**. The **Expression Builder** dialog should now look like:



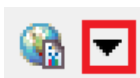
- d. Press **OK**.
6. Click the **Preview** tab. Your report will now show properly formatted HTML.

Exporting Reports

Once you've created a report, you can export it to one of the following formats:

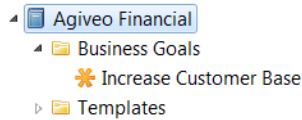
- PDF
- Microsoft Word
- PowerPoint
- Excel
- PostScript

Simply click the dropdown arrow on the **View Report** button on the toolbar:

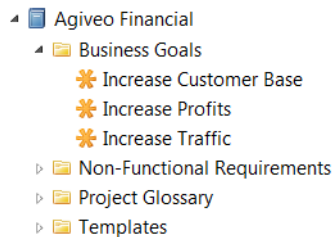


Tree Views

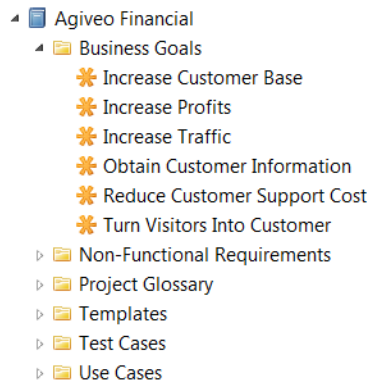
Over time projects change as requirements, use cases and other artifacts are added, deleted and moved from one location to the next. For example, consider the following project. In January this project only had a couple of folders and a single artifact:



As the project progressed additional folders were added. Here's the project in February:



And finally, here's the project in March:



Axiom **Tree Views** give you the ability to view your projects at a given point in time. For example, in March you could create a view of the tree for February or for January.

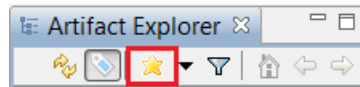


Learn how to use Axiom's Tree View feature with our [online tutorial](#).

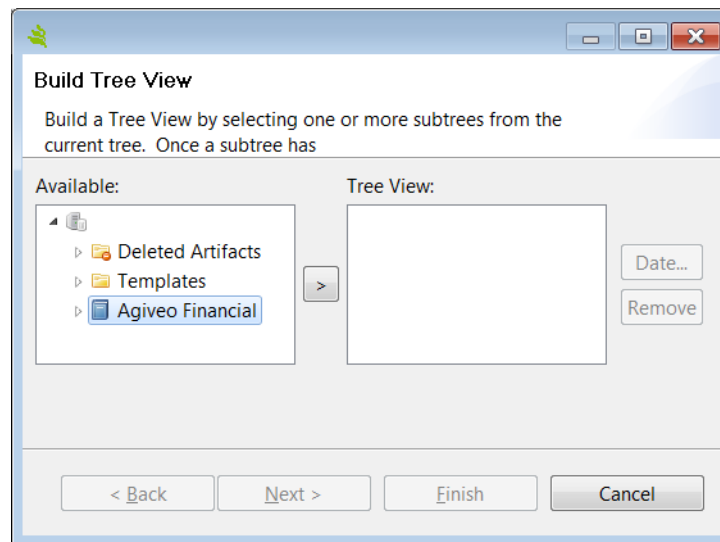
Creating Personal Tree Views

“Personal tree views” are tree views that are only visible on a single computer. To create a personal tree view:



1. Select the **Tree Views** button  on the [Artifact Explorer](#) toolbar:



2. When the **Build Tree View** wizard appears, select an artifact from the **Available** tree on the left:



3. Click the > button to move the selected artifact (and its children) to the **Tree View** tree on the right.
4. In the **Tree View** tree on the right, select the root artifact.
5. Select the **Date...** button to specify a date for the tree view.
6. Once you have selected a date, press the **OK** button.
7. Select the **Next >** button to continue.
8. Enter a name for your tree view in the **Name** field.
9. Press the **Finish** button to create the tree view.


Once you have created a **Tree View** it will appear as a view in Axiom. If you close this view, it can be reopened by selecting the dropdown   next to **Tree Views** button and clicking on your tree view's name.

Creating Shared Tree View Artifacts

Another way to define a tree view is to create a shared tree view artifact that resides in the Artifact Explorer with other artifacts.

To create a tree view artifact in Axiom, you will need to use a tree view template. If you haven't already created a tree view template:

1. Right-click on a folder in the [Artifact Explorer](#) view.

2. Select **New->Template...** from the popup menu.
3. When the **New Template** wizard appears, enter a name for your tree view template in the **Name** field.
4. Select the **Tree View**  content type from the **Content Type** list.
5. Click the **Next >** button to advance to the next page.
6. When the **Select Template Context** page appears, select the locations in the system where instances of this tree view template can be created.
7. Press the **Next >** button to advance to the next page.
8. The **Template Attributes** page allows you to associate attributes with your tree view. For more information on how to associate attributes with a template, see the [Creating a Template](#) section.
9. Click the **Finish** button to create your tree view template.

Once you have created a tree view template, you can use it to create tree views that will reside in the **Artifact Explorer** tree:

1. Right-click on location in the [Artifact Explorer](#) where you want to create a tree view.
2. Select **New** from the popup menu.
3. From the popup submenu, select a tree view template.
4. Enter a name for your tree view in the **Name** field.
5. When the **Build Tree View** page appears, select an artifact from the **Available** tree on the left.
6. Click the **>** button to move the selected artifact (and its children) to the **Tree View** tree on the right.
7. In the **Tree View** tree on the right, select the root artifact.
8. Select the **Date...** button to specify a date for the tree view.
9. Once you have selected a date, press the **OK** button.
10. Press **Finish**.

Administration

In this section we will discuss how to use the Axiom's new administration features to:

- Check the status of your Axiom server.
- Configure how Axiom users are obtained from your LDAP enabled directory server.
- Add ad-hoc users to the Axiom server.
- Maintain Axiom license keys.
- Configure how Email notifications are sent from the Axiom server.
- Obtain client and server updates.
- Database connections.

To open the **Administration Server Configuration** page, select **Administration->Edit Axiom Server Configuration** from the main menu.

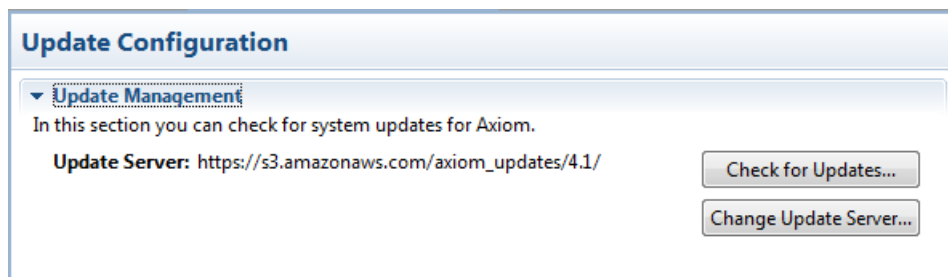
Server Status

The **Server Status** page provides an overview of the health of your Axiom server. To view the **Server Status** page, select the **Server Status** tab at the bottom of the page:



Update Management

The **Update Management** tab provides a way to obtain updates to your Axiom clients and servers. On this tab you can also view your update history.



To check to see if there are any important updates for the Axiom system, press the **Check for Updates...** button. If there are any new updates then Axiom will display a **System Updates Available** dialog that lists the enhancements and bug fixes included in the update. To accept the update, simply click the **Install** button.



Warning: Installing a system update will trigger a restart of the Axiom Server. It is recommended that you only install updates during the appropriate maintenance window for your company.

Once the updates are downloaded and installed your Axiom server will restart. Axiom clients will receive all necessary updates the next time they are started.

Database

In previous versions of Axiom, the system's database connection had to be configured when the server was installed. Starting with Axiom 4.1, the server's database connection can be configured through the Axiom client and can be changed at any time.



The screenshot shows a window titled "Database Configuration". Inside, there is a section labeled "Database Connection" with a dropdown arrow. Below this is the MySQL logo. The configuration details are as follows:

Database Type:	MySQL
Connection URL:	jdbc:mysql://localhost:3306/Axiom
User ID:	root
Driver Class:	org.gjt.mm.mysql.Driver

On the right side of the dialog, there are two buttons: "Change Database..." and "Test Connection".

By default, the Axiom server will be configured to use an embedded Hypersonic database. To use a different database such as MySQL, SQL Server, PostgreSQL or Oracle, press the **Change Database...** button. When the **Database Connection Settings** dialog appears, fill out the appropriate fields. When you press the **OK** button dialog the connection to the database will be validated by Axiom and, if the connection is valid, the server will be restarted.



Warning: Changing the Axiom database will cause the Axiom server to restart.

It should be noted that, data will not be migrated when you move from one database to another. If you would like to migrate Axiom data then it is recommended that you export your projects to XML (**File->Export** from the main menu) and then reimport them after you move to the new database.

Users

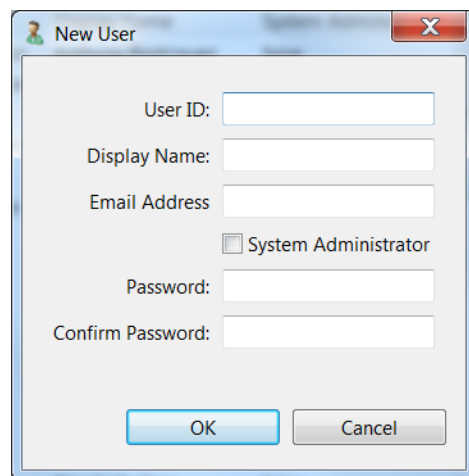
With Axiom 4.1 you now mix ad-hoc users (users created and managed within the Axiom system) and users from your LDAP enabled directory server (Active Directory, OpenLDAP, OpenDS, etc.). To view the current user configuration, click the **User** tab at the bottom **Axiom Server Configuration** page.

Users				
User ID	Name	Distinguished Name	LDAP User	System ...
admin	Axiom Administrator		false	true
ajones	Aaron Atrc	uid=ajones,ou=People,dc=example,dc=com	true	false
canderson	Christopher Anderson	uid=canderson,ou=People,dc=example,dc=...	true	false
cjackson	Chuck Jackson	cn=Chuck Jackson,ou=People,dc=example,dc=...	true	false
ghammond	George Hammond	uid=ghammond,ou=People,dc=example,dc=...	true	false
jdoe	John Doe	uid=jdoe,ou=People,dc=example,dc=com	true	false
mwilliams	Mike Williams	cn=Mike Williams,ou=People,dc=example,dc=...	true	false
rbaker	Rick Baker	cn=Rick Baker,ou=People,dc=example,dc=...	true	false
sblanston	Sam Blanston	cn=Sam Blanston,ou=People,dc=example,dc=...	true	false
tsimpson	Thomas Simpson	cn=Thomas Simpson,ou=People,dc=example,dc=...	true	false

Creating Ad-hoc Users

To add an ad-hoc user to Axiom (a user that is managed by the Axiom system):

1. Click the **Create New User**  button. The **New User** dialog appears:



The 'New User' dialog box contains the following fields and controls:

- User ID:** A text input field.
- Display Name:** A text input field.
- Email Address:** A text input field.
- System Administrator:** A checkbox.
- Password:** A text input field.
- Confirm Password:** A text input field.
- OK** and **Cancel** buttons at the bottom.

2. Enter a unique ID for the user in the **User ID** field.
3. Enter the user's full name and email address in the **Display Name** and **Email Address** fields respectively.
4. Optional: Check the **System Administrator** checkbox to make the user an Axiom System Administrator.
5. Enter identical temporary passwords in the **Password** and **Confirm Password** fields.
6. Press the **OK** button to create the new user in the system.




Note: After the new user logs in for the first time with a temporary password he should select **Edit->Change Password** from Axiom's menu bar to change his password.

Modifying Ad-hoc Users


To modify an Axiom user:

1. Select the Axiom user to modify.

2. Press the **Edit User**  button.
3. When the **Edit User** dialog appears, modify the appropriate fields.
4. Press the **OK** button to save the changes.

Deleting Users

To delete an Axiom user:

1. Select the Axiom user to delete.
2. Press the **Delete User**  button.
3. When the **Delete User** confirmation dialog appears, select the **Yes** button to delete the user from the system.



Note: After a user is deleted from the system, the user will no longer be able to login; however, the user's unique ID and history will be retained. For example, if a user creates a discussion message then the message will remain after the user is deleted.

Adding Users from a Directory Server

Axiom can be configured to fetch users from your company's LDAP-enabled directory server (Active Directory, OpenLDAP, OpenDS, etc.). To connect to a directory server, simply click the **Change Configuration...** button to launch the **Directory Server Configuration** dialog.

By default, when the **Directory Server Configuration** dialog appears, the directory server connection will be disabled. Uncheck the **Disable the directory server connection** checkbox to enable this connection. Then, simply follow the steps provided by the wizard to define the connection and user search criteria.

System Administrators

Axiom System Administrators have "root" or "super user" privileges within the Axiom system. This means that these users can:

- Create, delete and modify other user accounts.
- View and modify all artifacts in the system.
- See special system folders in the [Artifact Explorer](#) such as the **Deleted Artifacts** folder.

Both ad-hoc and directory server users can be designated as "System Administrators". To do so, simply double-click on a user in the **Users** list and check the **System Administrator** checkbox:

The 'Edit User' dialog box contains the following fields and controls:

- User ID: mwilliams
- Display Name: Mike Williams
- Email Address: (empty)
- ☒ System Administrator (highlighted with a red rectangle)
- Password: (masked with asterisks)
- Confirm Password: (masked with asterisks)
- OK button
- Cancel button

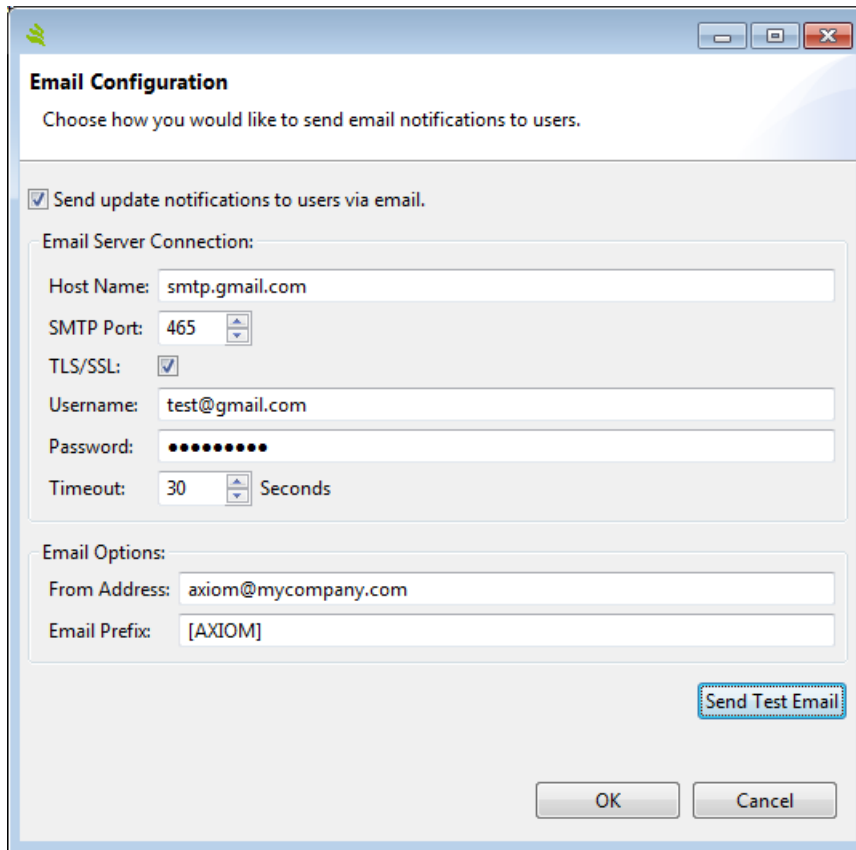
Email

Axiom can be used to notify users via email when certain events occur. The **Email** tab of the **Axiom Server Configuration** page can be used to define and test your email server connection:

The 'Configuration' tab displays the following settings:

Status:	Enabled	Change Configuration...
Host Name:	smtp.gmail.com	
SMTP Port:	465	Send Test Email
TLS:	true	
User Name:	test@gmail.com	
Timeout:	30 seconds	
From Address:	axiom@mycompany.com	
Email Prefix:	[AXIOM]	

To configure the email server connection, click the **Change Configuration...** button. When the Email Configuration Dialog appears, enter the connection parameters for your email server. For example, the following screen shot shows a connection to a Google Gmail account:

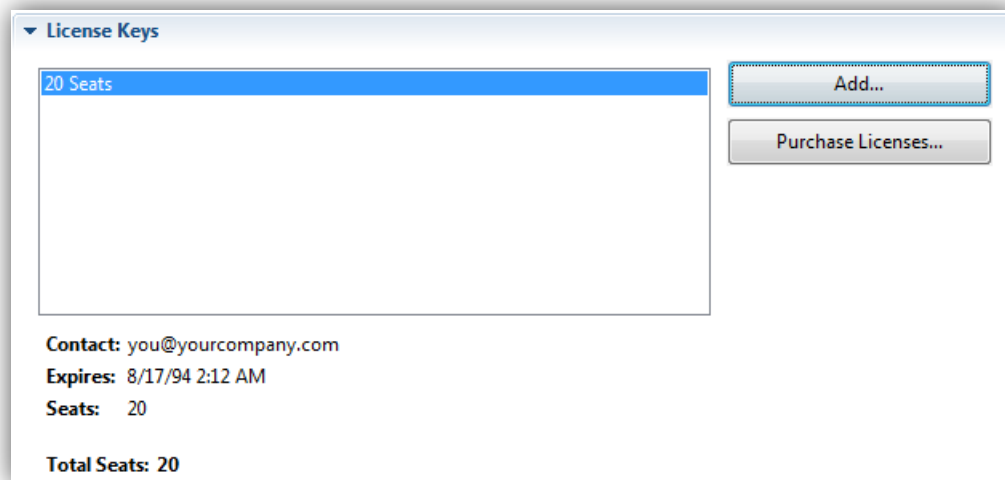
The image shows a Windows-style dialog box titled "Email Configuration". At the top, it says "Choose how you would like to send email notifications to users." Below this is a checked checkbox labeled "Send update notifications to users via email." Underneath is a section titled "Email Server Connection:" containing several fields: "Host Name" with the value "smtp.gmail.com", "SMTP Port" with a spinner set to "465", "TLS/SSL:" with a checked checkbox, "Username" with the value "test@gmail.com", "Password" with a masked field of dots, and "Timeout" with a spinner set to "30" followed by the text "Seconds". Below this is another section titled "Email Options:" with "From Address" set to "axiom@mycompany.com" and "Email Prefix" set to "[AXIOM]". At the bottom right of the dialog is a button labeled "Send Test Email". At the very bottom are "OK" and "Cancel" buttons.

Once this dialog is populated, click the **Send Test Email** button to test the email connection. If successful, you will receive a “success” email in your inbox.

To learn how to configure which Axiom events will trigger an email, see the [Email Triggers](#) section of this guide.

License Management

If you are using (or wish to use) the functionality provided by **Axiom Professional**, then you will need to use the **License** tab of the **Axiom Server Configuration** page to maintain your Axiom Professional license keys:



Axiom Professional uses a concurrent license management scheme. This means that every time a user logs into the Axiom server a single license “seat” is consumed. Likewise, when a user closes the Axiom client a license seat is released.

Purchasing License Keys

To obtain a license for **Axiom Professional** or to add additional seats, select the **Purchase Licenses...** button or go to <http://www.iconcur-software.com/trial.html>.

Adding License Keys





To enter a new license key:

1. Select the **Add...** button from **License Keys** tab on the **License Management** dialog.
2. When the **New License Key** dialog appears, paste your license key in the **License Key** field.
3. Press **OK** to add the license key.

Monitoring Seat Consumption

Axiom administrators can monitor the consumption and release of seats by viewing the **Seat Usage** section of the License tab:

You are using 4 out of 30 of your total seats.
The following users are consuming seats:

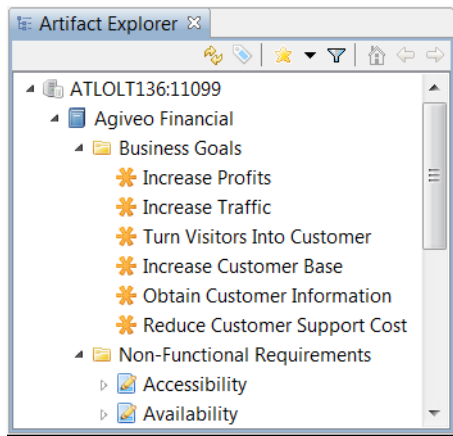
User	Seat Refreshed
 bwilson	8/7/11 10:30 AM
 Carol Roberts	8/7/11 10:32 AM
 Donald Harris	8/7/11 10:31 AM
 Lisa Adams	8/7/11 10:32 AM

The **User** column shows the users that are consuming license seats.

The **Seat Refreshed** column shows the last time the corresponding user performed an action that refreshed the seat. If a user closes the Axiom client or stops interacting with the user interface then the user will be removed from this list.








Artifact Explorer

The **Artifact Explorer** view provides a hierarchical view of Axiom artifacts. From this view you can create, delete and reorder artifacts:



Commands

The **Artifact Explorer** toolbar contains a number of common commands:

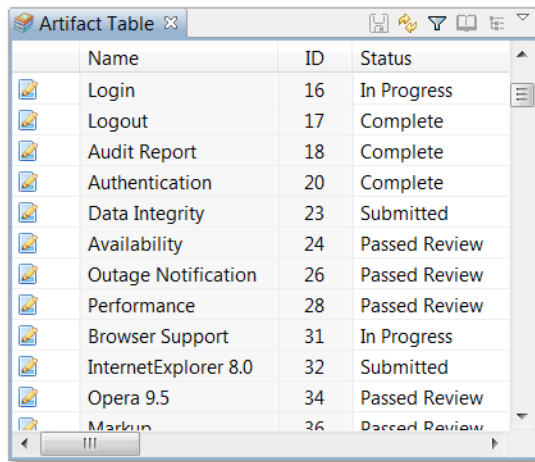
-  **Refresh** - Click the refresh button to reload the entire artifact explorer tree.
-  **Show Artifact ID** – Shows or hides the unique ID for artifacts.
-  **Favorite Tree Views**– A drop down menu for creating, organizing and selecting Tree Views. For more information, see [Tree Views](#).
-  **Filter** – Select this button to apply a filter to the **Artifact Explorer** based on artifact type.
-  **Go Into** – The **Go Into** button to focus the **Artifact Explorer** on the selected artifact and its children.
-  **Back** – Becomes enabled when the **Go Into** button is used to focus on a sub-tree of artifacts. The **Back** button returns the focus to the larger tree of artifacts.
-  **Home** – Shows all artifacts in the **Artifact Explorer**.

Related Concepts

- [Working with Artifacts](#)

Artifact Table

The **Artifact Table** view provides a tabular view of Axiom artifact data:



	Name	ID	Status
	Login	16	In Progress
	Logout	17	Complete
	Audit Report	18	Complete
	Authentication	20	Complete
	Data Integrity	23	Submitted
	Availability	24	Passed Review
	Outage Notification	26	Passed Review
	Performance	28	Passed Review
	Browser Support	31	In Progress
	InternetExplorer 8.0	32	Submitted
	Opera 9.5	34	Passed Review
	Markun	26	Passed Review




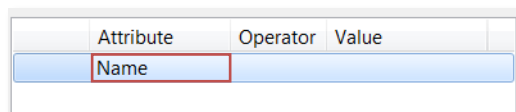
Learn how to use the **Artifact Table** with our interactive [Artifact Table tutorial](#).

To display the **Artifact Table** view, select **View->Artifact Table** from the Axiom menu bar.

Populating and Filtering

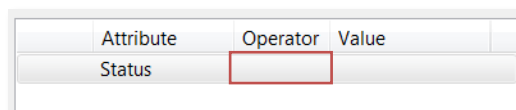
When opened, the **Artifact Table** view will initially be empty. To view artifact data, you will need to define a filter:

1. Click the **Edit Filters** button  on the **Artifact Table's** toolbar.
2. When the **Edit Filters** dialog appears, press the **Select...** button to select a sub-tree of artifacts to filter.
3. If you want to include all artifacts in the selected sub-tree, press the **OK** button to return to the **Artifact Table** view; otherwise, click the **New** button to add a new filter condition.
4. Click the first row in the **Attributes** column to select an attribute:



Attribute	Operator	Value
Name		

5. Select an attribute from the attribute list.
6. Click the first row in the **Operator** column:



Attribute	Operator	Value
Status		

7. Select an operator from the list.
8. Click the first row in the **Value** column:

Attribute	Operator	Value
Status	equals	Passed Review

9. Select or enter a value.
10. Add additional conditions or select the **OK** button to apply the filter.



Editing Custom Attributes

The **Artifact Table** view can be a powerful tool for modifying the custom attributes of Axiom artifacts. Simply select one or more rows and double click on the cell to be edited:

ID	Status	Review By
58	Passed Review	<n/a>
61	Passed Review	<n/a>
14	Passed Review	7/11/07 5:00 PM
22	Submitted	7/11/07 5:00 PM
28	Pending Review	7/6/10 6:00 PM
26	Passed Review	7/2/11 11:00 PM
34	In Progress	7/2/11 11:00 PM
21	Complete	7/2/11 11:00 PM
	Submitted	7/11/07 5:00 PM

Once modified, cells will be highlighted:

146	Passed Review	<n/a>
58	Passed Review	<n/a>
61	Passed Review	<n/a>
14	Passed Review	7/11/07 5:00 PM
22	Passed Review	7/11/07 5:00 PM




To save your changes, select the **Save** button  from the toolbar. To revert your changes, select the **Refresh** button .

Hiding Columns

To hide **Artifact Table** columns, select the **Edit Column Filter**  button from the toolbar. Then simply place a check next to each column that you wish to view.

Commands

The **Artifact Table** toolbar contains the following commands:

-  **Save** – Saves all modifications to the **Artifact Table**.
-  **Refresh** – Discards all changes and rebuilds the **Artifact Table**.
-  **Filter** – Click the **Filter** button to select a sub-tree of artifacts and apply a filter.



Edit Column Filter – Opens the **Filter Artifact Table Columns** dialog where columns can be shown or hidden.



Export to Excel – Exports the **Artifact Table** to Microsoft Excel.



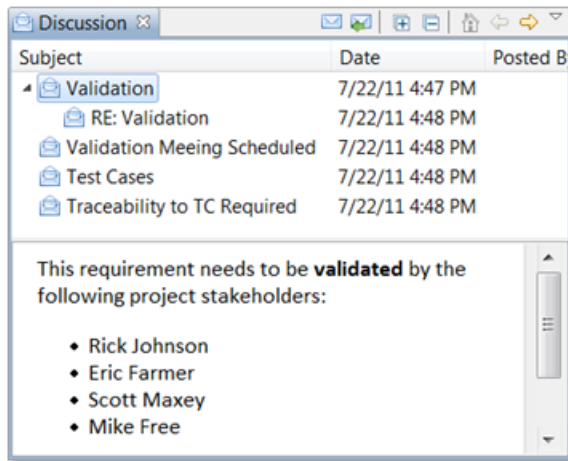
Open selected artifact – Opens the content of the selected artifact in the [Content Editor](#).



Select artifact in Artifact Explorer – Selects the selected artifact in the [Artifact Explorer](#).


Discussion

Users can discuss and provide feedback on Axiom artifacts by utilizing the **Discussion** view.




Creating Messages

To create a new discussion message:

1. Open the **Discussion** view by selecting **View->Discussion** from Axiom's menu bar.
2. Select the artifact in the [Artifact Explorer](#) that you would like to discuss.
3. In the **Discussion** view, select the **New Discussion Message** button .
4. When the message window appears, enter a subject and rich text description.
5. Press the **OK** button to create the message.

Replying to Messages

To reply to a discussion message:

1. Select a discussion message to reply to.
2. In the **Discussion** view, select the **Reply** button .
3. When the message window appears, enter a subject and rich text description.
4. Press the **OK** button to create the reply message.

Marking Messages as Read/Unread








The subjects of all unread messages are displayed as bold in the **Discussion** view. Messages will be marked as "read" after they have been selected. To mark a discussion as "unread," right-click on the message and select **Mark as Unread**.

Deleting Discussion messages

To delete a discussion message, simply select a message and press the **DELETE** key on your keyboard. Please note however that you can only delete a message that *you* created which has no replies.

Commands

The **Discussion** view toolbar contains the following commands:

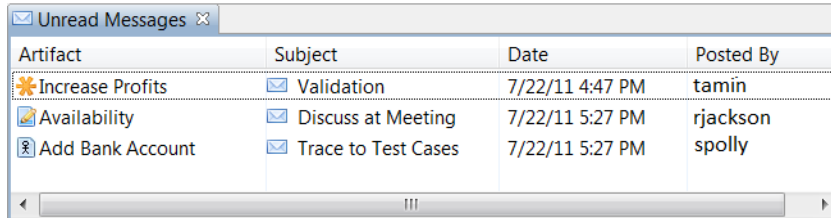
-  **New Discussion Message** – Creates a new discussion message for the selected artifact.
-  **Reply** – Creates a reply to the selected discussion message.
-  **Expand All**– Expands all discussion messages and their replies.
-  **Collapse All** – Collapses all reply messages so that only the first level of messages is visible.
-  **Go Into** – The **Go Into** button to focus the **Discussion** view on the selected message and its replies.
-  **Back** – Becomes enabled when the **Go Into** button is used to focus a discussion message. The **Back** button returns the focus to the larger view or messages.
-  **Home** – Shows all messages in the **Discussion** view.

Related Concepts

- [Unread Messages](#)

Unread Messages

The **Unread Messages** view provides a list of artifacts that have one or more discussion messages that have not been read by the current user.



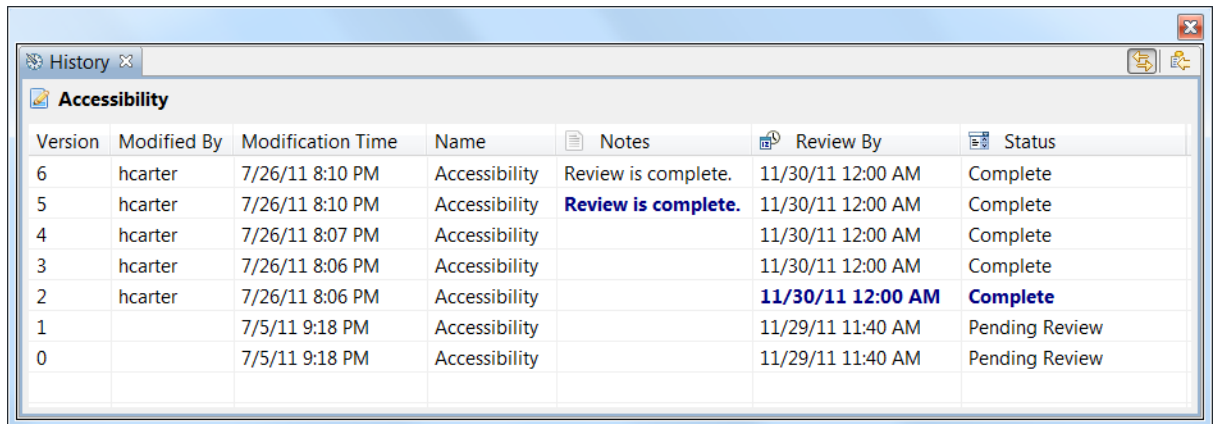
Artifact	Subject	Date	Posted By
✱ Increase Profits	✉ Validation	7/22/11 4:47 PM	tamin
📄 Availability	✉ Discuss at Meeting	7/22/11 5:27 PM	rjackson
🔗 Add Bank Account	✉ Trace to Test Cases	7/22/11 5:27 PM	spolly

To view the **Unread Messages** view, select **View->Unread Messages** from Axiom's menu bar.

To view the artifact associated with an unread message, click once on an item in the list. Double-clicking on an item will open the [Discussion View](#) and select the unread message.

History

The **History** view provides a tabular view of all versions of an artifact:



The screenshot shows a window titled 'History' with a tab labeled 'Accessibility'. Inside the window is a table with the following data:

Version	Modified By	Modification Time	Name	Notes	Review By	Status
6	hcarter	7/26/11 8:10 PM	Accessibility	Review is complete.	11/30/11 12:00 AM	Complete
5	hcarter	7/26/11 8:10 PM	Accessibility	Review is complete.	11/30/11 12:00 AM	Complete
4	hcarter	7/26/11 8:07 PM	Accessibility		11/30/11 12:00 AM	Complete
3	hcarter	7/26/11 8:06 PM	Accessibility		11/30/11 12:00 AM	Complete
2	hcarter	7/26/11 8:06 PM	Accessibility		11/30/11 12:00 AM	Complete
1		7/5/11 9:18 PM	Accessibility		11/29/11 11:40 AM	Pending Review
0		7/5/11 9:18 PM	Accessibility		11/29/11 11:40 AM	Pending Review



 Learn more about the **History** view with our [interactive tutorial](#).

To view the **History** view, select **View->History** from Axiom's menu bar.

To open a particular version of an artifact, simply double-click on line in the **History** view. When a previous (non-current) version of an artifact is opened it will not be editable.

Commands

The **History** view toolbar contains the following buttons:

-  **Link with selection** – When selected, the history view will be updated every time you select an artifact in the [Artifact Explorer](#).
-  **Show history for selected artifact** – If the **Link with selection** button is not selected then you can select this button to display the history of the artifact selected in the **Artifact Explorer**.

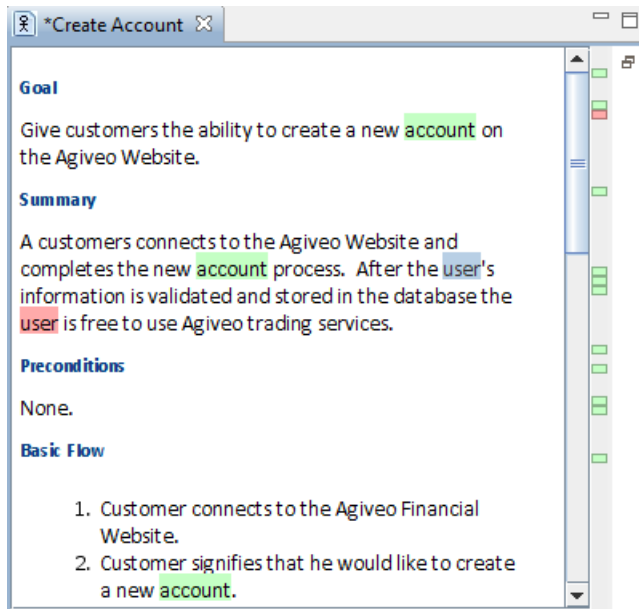
Related Concepts

- [Tree Views](#)

Watch List

Ambiguous and confusing language in requirements and other artifacts can often lead uncertainty and wasted man-hours when developing software. To combat this problem, project teams will often define and maintain a glossary of terms.


With Axiom you can create a glossary term template and use it to create glossary term artifacts (see [Creating a Template](#)). And, with the **Watch List** view, you can continually scan your artifacts for the names of these glossary term artifacts.



To learn more about the **Watch List** consult our [interactive tutorial](#).

Configuring the Watch List

To configure the **Watch List**, simply point it to a sub-tree of Axiom artifacts by taking the following steps:

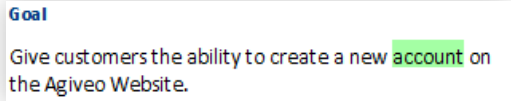
1. Open the **Watch List** by selecting **View->Watch List** from Axiom's menu bar.
2. Select the **Configure Watch List** button  from the **Watch List** toolbar.
3. When the **Watch List Configuration** dialog appears, press the **New...** button.
4. Select a folder or artifact from the tree. For example, you may want to select the folder that contains your project's glossary terms.
5. Select a color that will be used to highlight the names in the editor.
6. Select the **OK** button.

When the **Watch List** is properly configured and you open or modify an artifact, the content of the artifact will be scanned for the terms that you selected.

Working With the Watch List

The **Watch List** will scan the content of the currently selected artifact; therefore, you only need to open an artifact in the editor to start the scanner.

When an artifact is scanned by the **Watch List**, the matching terms will be highlighted in the editor:







The location of terms will also be highlighted next to editor's scrollbar.

Clicking on a term in the editor will cause the description of the term to be displayed in the **Watch List** view. In the **Watch List** view, you can also use the **Select Next Match** ⬇️ and **Select Previous Match** ⬆️ buttons to find and highlight the terms in the current artifact's description.

Commands

The **Watch List** view toolbar contains the following buttons:

-  **Open selected artifact** – Opens the content of the selected artifact in the [Content Editor](#).
-  **Select Next Match** – Finds and highlights the next instance of a term in the current artifact content.
-  **Select Previous Match** – Finds and highlights the previous instance of a term in the current artifact content.
-  **Configure Watch List** – Opens the **Watch List Configuration** dialog allowing you to select one or more sub-trees of artifacts to be scanned for.

Axiom Client System Requirements

The system requirements for the Axiom client are as follows:

Operating System

- Windows 7
- Windows Vista
- Windows XP SP2 or later

System Specification

- GHz CPU (2.2 GHz or higher is recommended)
- 1 GB of system memory (RAM)
- 1 GB available hard disk space
- Screen resolution at 1024 x 768 or higher

Customer Support

Customers who have signed up for Axiom Support and Maintenance, as well as prospective customers who are evaluating Axiom, are eligible for customer support. Our highly trained staff is ready to assist you with any questions or problems that might arise as you install and use the Axiom client.

For customer support contact information, visit: <http://www.iconcur-software.com/support.html>. If you experience a problem with your Axiom server then please have the following information available when you contact support:

- Client Logs
- Operating System